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A review of the Afrotropical genus *Rhabdogaster* Loew, 1858 with descriptions of new species (Diptera: Asilidae: Stenopogoninae)

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ABSTRACT

Rhabdogaster Loew, 1858, a primarily Afrotropical genus, is reviewed. Thirty-eight species are included in the genus, 28 being newly described. A key and notes on taxonomy, distribution, phenology and biology, are provided.

New species: *atropalpus* (South Africa), *bicolor* (South Africa), *charma* (South Africa), *cornuata* (South Africa), *cuthbertsoni* (Zimbabwe), *eremia* (Namibia), *etheira* (South Africa), *glabra* (Namibia), *kalyptos* (Namibia); *karoo* (South Africa), *kosmos* (Namibia), *lindneri* (Ivory Coast, Kenya, Uganda), *melas* (South Africa), *nyx* (South Africa), *oresbios* (South Africa), *oribi* (South Africa), *pedion* (Lesotho, South Africa, Swaziland), *pellos* (South Africa), *poa* (South Africa, Botswana), *quasinuda* (South Africa), *sinis* (South Africa), *tanylabis* (South Africa, Namibia), *theroni* (South Africa), *xanthokelis* (South Africa), *yeti* (Namibia, South Africa), *zebra* (Angola), *zilla* (Botswana, Namibia, South Africa), *zopheros* (Angola).

New combinations: *Heteropogon flavidus* Lindner, 1973 and *Heteropogon oldroydi* Lindner, 1973, placed in *Afroholopogon* by Londt (1994*a*), are transferred to *Rhabdogaster*.

Previously described species considered valid: *cinerascens* (Wulp, 1899) (Eritrea, Oman, Saudi Arabia, Yemen); *flavida* (Lindner, 1973) (Namibia); *gracilis* (Engel & Cuthbertson, 1937) (Botswana, Kenya, Malawi, Namibia, South Africa, Sudan, Tanzania, Zambia, Zimbabwe); *maculipennis* Engel, 1929 (Zimbabwe); *major* Oldroyd, 1970 (DR Congo); *nitida* Hull, 1967 (South Africa); *nuda* Loew, 1858 (South Africa); *oldroydi* (Lindner, 1973) (Namibia); *pulverulentus* (Loew, 1858) (South Africa); *rustica* Oldroyd, 1974 (Mozambique, South Africa).

Lectotype designation: *maculipennis* Engel, 1929.

KEY WORDS: Asilidae, Stenopogoninae, *Rhabdogaster*, robber flies, afrotropics, new species, identification key.

INTRODUCTION

Asilids of the genus *Rhabdogaster* Loew, 1958 are found over much of Sub-Saharan Africa (Fig. 128) and in southern Arabia. Most of the known species are southern African, but this is at least in part due to collecting bias. These are small, darkly-coloured flies with patterns of silvery pruinescence and transparent wings (Fig. 1). Species closely resemble those of *Afroholopogon* Londt, 1993 with which they have frequently been confused, even by specialists. The entirely sclerotised postmetacoxal bridge (Fig. 2) possessed by all species of *Rhabdogaster* remains an excellent and easily observable character that should eliminate all confusion. Like species of *Afroholopogon*, revised by Londt (2005), species of *Rhabdogaster* are usually associated with biomes dominated by grass. Being small, these asilids are not frequently observed and are usually discovered in sweep nets. Some specimens have been recovered from flight traps and very occasionally in light traps (but are unlikely to have been nocturnally active). Population levels may be high, as has been experienced in montane meadows at many places in the Drakensberg mountains of KwaZulu-Natal. The general paucity of records is undoubtedly due to insufficient sampling through the sweeping of vegetation. While many new species are described in this paper, there are bound to be more awaiting discovery.

The following brief historical account of species now assigned to *Rhabdogaster* provides background to this taxonomic study.

Loew (1858): Described *Spanurus* (with a new species, *pulverulentus*, as type species) and *Rhabdogaster* (with a new species, *nudus*, as type species). Both species were founded on unique holotypes collected by Wahlberg during his explorations in southern Africa.

Loew (1860): Repeated and elaborated on his 1858 descriptions of *Spanurus pulverulentus* and *Rhabdogaster nudus*, providing illustrations of the head and wing of the former.

Wulp (1899): Described *Psilinus*, with a new species, *cinerascens*, from Aden (Yemen) as type species.

Engel (1929): Described *Rhabdogaster maculipennis* from Zimbabwe (then Rhodesia).

Engel & Cuthbertson (1937): Described *Heteropogon gracilis* from Zimbabwe.

Hull (1962): Included *Rhabdogaster* in his review of world genera, listing two species (*maculipennis* and *nudus*). He retained *Psilinus* with its single species (*cinerascens*) and *Spanurus*, listing four afrotropical species, including *pulverulentus*. The other three species are now assigned to *Connomyia* Londt, 1992 (see Londt (1993) for details).

Hull (1967): Described *Rhabdogaster nitidus* from South Africa.

Lindner (1973): Described *Heteropogon flavidus* and *oldroydi* from Namibia (then South West Africa).

Oldroyd (1970): Briefly discussed the genus and described a new species, *Rhabdogaster major*, from the Congo River basin.

Oldroyd (1974): Discussed *Rhabdogaster*, keying five southern African species, *maculipennis*, *nitidus* and *nudus* as well as two newly described ones, *meilloni* and *rusticus*.

Oldroyd (1980): Catalogued afrotropical Asilidae, including six *Rhabdogaster* species (*maculipennis*, *major*, *meilloni*, *nitida*, *nuda*, *rustica*). Other species, now known to belong to *Rhabdogaster* were included under *Heteropogon* (i.e. *flavidus*, *gracilis* and *oldroydi*).

Londt (1993): Synonymised *Psilinus* and *Spanurus* with *Rhabdogaster*, listing eight species in the afrotropical fauna (*cinerascens*, *maculipennis*, *major*, *meilloni*, *nitida*, *nuda*, *pulverulentus*, *rustica*), and drawing attention to the need for a revision of this fauna.

Londt (1994*a*): Provided a new name (*Afroholopogon*) for afrotropical species previously assigned to *Cyrtopogon*, *Heteropogon* and *Holopogon*, listing twelve new combinations including species now placed in *Rhabdogaster* (i.e. *flavidus*, *gracilis*, *oldroydi*).

Londt (1999): Keyed all the genera of afrotropical Stenopogoninae, including *Rhabdogaster*.

Londt (2005): In reviewing afrotropical species of *Afroholopogon* transferred *meilloni* to that genus and established that *Heteropogon gracilis* was a *Rhabdogaster*.

There were therefore eight species of *Rhabdogaster* at the commencement of this revision (i.e. *cinerascens*, *gracilis*, *maculipennis*, *major*, *nitida*, *nuda*, *pulverulentis* and *rustica*). However, in reviewing *Afroholopogon* I mentioned two other species, *flavidus* and *oldroydi*, which were not treated in that revision. This was because I had intended to formally transfer them to *Rhabdogaster*, but neglected to do so. This oversight has now been dealt with in this paper. To these 10 species I can now add 28 new ones, bringing the final total to 38. With the publication of this review it is hoped that the long-standing confusion between *Rhabdogaster* and species now assigned to *Afroholopogon* will have been finally resolved.

MATERIALS AND METHODS

Material

Specimens studied are housed in the Natal Museum (NMSA) unless otherwise indicated. Other institutions housing material are listed below, together with the abbreviations used in the text when citing these repositories and the names of people who kindly assisted with information and/or loans.

BMNH – The Natural History Museum, London, U.K. (J. Chainey & D. Notton).
CASC – California Academy of Sciences, San Francisco, U.S.A. (N. Penny).
MZLU – Museum of Zoology, Lund University, Sweden (R. Danielsson).
NHRS – Naturhistoriska Riksmuseet, Stockholm, Sweden (B. Viklund).
NMBZ – National Museum of Zimbabwe, Bulawayo, Zimbabwe (V. Muyambo).
NMNH – National Museum of Natural History, Smithsonian Institution, Washington, U.S.A. (F. Christian Thompson).
NMNW – State Museum, Windhoek, Namibia (J. Marais).
SAMC – South African Museum, Cape Town, South Africa (M. Cochrane).
SMNS – Staatliches Museum für Naturkunde Stuttgart, Germany (H-P. Tschorsnig).

In all instances, specimens had been dry-mounted on pins. Drawings were executed with the aid of a drawing-tube attached to a Wild stereo-microscope, male terminalia being first removed, macerated in warm potassium hydroxide, and extended (by inserting a pin into the cut end). Terminalia were stored temporarily in glass vials containing 70% ethanol until the completion of the study, when they were sealed in polyethylene terminalia vials containing a mixture of ethanol and glycerine and attached to pins below the relevant specimens.

Label data

In recording label data, a standard format has been employed where each label is demarcated by the use of single inverted commas, each line of data being separated by a spaced slash (/) (note that when a slash appears on labels it is cited without spaces). The provision of full and accurate information of this kind is not considered a waste of space as such data will not only serve to clearly identify specimens but are now proving of value in biodiversity studies (Meier & Dikow 2004). The symbol '~' indicates that the following data are on the reverse of the label just documented, while square brackets are used to add useful information or comment not found on labels. In this regard, coordinates are usually provided in square brackets when these, or a quarter-degree grid reference, do not appear on a label. These coordinates appear immediately following the gazetteered name (degree and minute symbols being omitted to save space), no adjustment being made when specimens were collected some distance from the place named. In some instances names or their spelling have changed, and so additional information may be provided when considered necessary. When two or more similar entries were encountered in gazetteers, the coordinates of the 'populated place' are usually given. The institution housing the specimen(s) is named (in parentheses) when *not* the Natal Museum. Specimens are also arranged roughly in geographical order (i.e. according to latitude and longitude) to assist in mapping.

Descriptive passages

Descriptions and redescriptions (species arranged in alphabetical order) are provided using the following standardised headings:

Etymology: Used only to indicate the origins of new names.

Description / Redescription: A general heading for the description of the species which is usually based on the primary type, but sometimes supplemented by information obtained from other specimens. The section is divided into subsections dealing with the *head*, *thorax* and *abdomen*.

Variation: Some indication of the degree of sexual dimorphism and individual/geographic variation seen in the species. This section is omitted if the species is uniform or variation is unknown.

Type specimens: All known type-specimens are listed. I have studied the type specimens unless otherwise stated. In some instances additional notes relating to types are presented; these may include the designation of a type locality. In recording specimens the gender symbols for male and female are used. When the terminal segments are missing and the sex not determinable a question-mark (?) is used.

Other material studied: This section lists material, other than types, seen by me. Specimens are arranged in the standard format described above.

Other recorded material: Where relevant, comment is provided regarding published records of specimens not studied by me.

Distribution, phenology and biology: A section dealing briefly with these subjects. Reference to tabulated information and maps is made. When biological information is not supplied this is because there is none (apart from information that may have been cited on labels listed in the sections dealing with material).

Similar species: A section used for brief comments on similarities with other species. No attempt at establishing phylogenetic relationships is made.

Morphology

Terminology and abbreviations used generally follow McAlpine (1981). As far as descriptions are concerned, the following characters were given attention.

Head:

General colour, pruinosity and setation. When colours of structures are not provided later in the section it is because they are as indicated in this general statement.

Antenna: Coloration, pruinosity, setation (setae are invariably confined to scape and pedicel). The third antennal 'segment' is called the postpedicel and this is tipped by a style made up of a short basal element, a longer central shaft and a spine-like distal tip.

Face: Pruinosity, colour and development of mystax. While the word 'spot' is sometimes used when referring to an area lacking pruinescence, these areas are not usually circular in shape as is characteristic of spots.

Frons and vertex: Pruinosity, setation (on both ocellar tubercle and surrounds). Pruinescence, when present, is sometimes poorly developed and confined mainly to the frons where its distribution may not necessarily be uniform.

Occiput: Pruinosity, setation. For setation, the terms dorsal, central and ventral may be used to refer to the positions of setae when the head is viewed laterally. This view implies that visible setae are usually those close to the posterior margin of the eye.

Proboscis: General coloration and coloration of setation.

Palpi: General coloration and coloration of setation. There are always two palpal segments which are abbreviated *plp* 1 and 2.

Thorax:

General colour, pruinosity and setation. Where the colours of structures are not provided later in the section, it is because they are as indicated in this general statement.

Mesonotum: Pruinosity and setation. An emphasis is placed on pruinescence and the patterns seen when coverage is incomplete. These patterns may be somewhat variable. The number of macrosetae is not provided as these are usually poorly developed and variable in number (usually only 1 or 2 in each group).

Scutellum: Coloration, pruinosity, setation. The disc is asetose except in *R. yeti*. Marginal scutellar setae (*sctl s*) are always present, but may be tiny or thin and inappropriate to describe as macrosetae.

Pleura: Pruinosity and general coloration of setation. Setation is usually confined to the katatergite and anepisternum but weak setae may be found on other pleurites.

Postmetacoxal bridge: This is situated between the metepimera, immediately above the hind coxae (Fig. 2) and is an important generic character. The sclerotised area is usually completely pruinose, but a few species possess an apruinose bridge.

Legs: General coloration, pruinosity and setation. Descriptions of colour are generalised as variation is common. Abbreviations such as *cx* (coxa/coxae), *troc* (trochanter/s), *fem* (femur/femora) and *tib* (tibia/tibiae) or *tar* (tarsus/tarsi) are used to save space, while the numbers 1, 2 and 3 refer to the prothoracic/fore, mesothoracic/mid and metathoracic/hind legs.

Wing: Measurements of length (from humeral vein to tip) and maximum width (usually at the level of first radial fork) are provided along with an indication of colour. In a few instances the wing membrane may be slightly stained, but when microtrichia are abundant and darkly coloured, staining may not be obvious. Wings vary specifically with respect to microtrichial cover. Some indication of this coverage may be given, but the specific conditions of the discal and costal cell is highlighted as these are used as key characters.

Abdomen:

General coloration, pruinosity and setation. Some detail about tergites and sternites may be provided separately.

Terminalia: Illustrations are provided of male terminalia. A brief description is provided in order to direct readers to features of note. Anatomical terms abbreviated include *epand* (epandrium), *goncx* (gonocoxite), *gonst* (gonostylus), *hypd* (hypandrium). The gonocoxite usually possesses two distal lobes or projections, one lies 'internally' and is not always visible when viewing terminalia laterally, and one lies 'externally' and is fully exposed in lateral view. The shape of the hypandrium is usually an important diagnostic character, but can be affected by the angle of view. While every effort was made to standardise the illustrated view, slight variation can be expected.

Illustrations

Final illustrations were prepared from pencil drawings prepared with the aid of a drawing-tube. They do not show setae, as the shape of structures is considered more important than setal number or distribution. Illustrations of male terminalia may not show structures that are obscured by others. Wings were not removed from specimens for photography.

TAXONOMY

Rhabdogaster Loew, 1858

Spanurus Loew, 1858: 350 [1860: 164]. Type species: *Spanurus pulverulentus* Loew, 1858, by monotypy.
Rhabdogaster Loew, 1858: 346 (key), 351 (description) [1860: 167]. Type species: *Rhabdogaster nuda* Loew, 1858, by monotypy.
Psilinus Wulp, 1899: 85. Type species: *Psilinus cinerascens* Wulp, 1899, by monotypy.

Diagnosis. Stenopogonine asilid flies with the following combination of characters: Anatergites bare; costal vein terminates at or before point where anal vein joins wing margin such that anal lobe and alula are without a bordering vein; pulvillae well developed; postmetacoxal bridge entirely sclerotised.

Rhabdogaster atropalpus sp. n.

Figs 6–8

Etymology: From Latin *atra* (black) + *palpus*. Refers to the black palpal setae found in this species.

Description: Based mainly on holotype ♂.

Head: Black, silver pruinose, black and white setose. Antenna black, setae black. Face entirely pruinose. Mystax mostly white with a few black setae dorsally, occupying lower half of face. Frons mostly pruinose, vertex entirely apruinose (including ocellar tubercle), black setose. Occiput entirely pruinose, mostly white setose except for some black setae dorsally. Proboscis and palpi dark red-brown, mostly white setose except for tuft of black setae terminally on *plp* 2.

Thorax: Black, silver and gold pruinose, black and white setose. Mesonotum extensively silver-gold pruinose except for pair of anteromedial stripes, postpronotal and postalar lobes and three lateral spots, one anterior of transverse suture and two posterior of suture, setae mostly black (dorsocentrals well developed) except for few white anterolaterally. Pleura entirely gold-silver pruinose, white setose. Scutellum extensively pruinose except for posterior margin, with 8 black *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* dark red-brown; *fem* orange-brown with dark red-brown ventral surfaces (weak on forelegs), extensively white setose (*fem* 3 with row of strong black setae ventrally); *tib* orange-brown, legs 2 and 3 dark red-brown ventrally, predominantly white setose (some black setae ventrodistally); *tar* dark red-brown, mostly black setose. Wing 5.9 x 1.8 mm, veins dark brown, membrane transparent, unstained, extensively microtrichose except for some proximal parts. Discal cell entirely microtrichose, costal cell extensively lacking microtrichia (a few distally).

Abdomen: Dark red-brown to black, silver and gold pruinose, black and white setose. Tergites silver-gold pruinose except for broad apruinose posteromedial margins, mostly short black setose (white setose laterally). Sternites entirely gold-silver pruinose, white setose. Terminalia (Figs 6–8 Pakhuis Pass paratype): *epand* in lateral view gradually tapering to rounded tips, dorsally divided into two lobes that are closely associated proximally; *hypd* in lateral view slightly shorter than both *epand* and *goncx*, moderately upturned distally; broad basally in ventral view but tapering rapidly to distal projection approximately the same length as broad base; *goncx* slightly shorter than *epand* lobe, tapering smoothly from about midlength to acute tip, well sclerotised internal lobe projecting well beyond external lobe and with rounded apex. Gonostyli in ventral view gently curved.

Holotype: ♂ SOUTH AFRICA: *Western Cape*: 'Sth Africa: Cape Prov / 4 km SW Clanwilliam / 32°11'30"S:18°52'20"E / 28.viii.1989 225m / J Londt B Stuckenberg / & P Croeser Sandy E / slope macchia nr dam'.

Paratypes: SOUTH AFRICA: *Western Cape*: 1♂ 5♀ 'Sth Africa: Cape Prov / 4 km SW Clanwilliam / 32°11'30"S:18°52'20"E / 28.viii.1989 225m / J Londt B Stuckenberg / & P Croeser Sandy E / slope macchia nr dam'; 1♀ 'Sth Africa Cape Prov / 30 km S Clanwilliam / 3218BD 31.viii.1981 / J. Londt, L. Schoeman / and B. Stuckenberg. / Karroid broken veld'; 1♂ 1♀ 1? 'South Africa: Cape / Prov.; West side of / Pakhuis Pass [3208S:1900E], Cedarberg / Mtns. 10-ix-1984 / M.E. Irwin'; 1♀ 'South Africa: Cape / Prov.; Pakhuis Pass / West side / 11-ix-1984 / M.E. Irwin'.

Distribution, phenology and biology (Tables 1, 2): Recorded only from South Africa. Known from four collections from the Clanwilliam area, west of the Cedarberg mountain range. Collected in August and September.

Similar species: Distinctive.

Rhabdogaster bicolor sp. n.

Figs 9–11

Etymology: From Latin *bi*-(two) + *color* (colour). Refers to the two-tone (red-gold and silver) pruinescence found on the head, thorax and abdomen of this attractive species.

Description: Based on unique holotype ♂.

Head: Orange-brown and dark red-brown, silver and red-gold pruinose, black and white setose. Antenna: Scape and pedicel orange-brown, postpedicel and style dark red-brown, setae black. Face brown-orange, extensively silver pruinose except for two oblique spots centrally. Mystax entirely white, occupying lower half of face. Frons and vertex dark red-brown (contrasting with face), entirely red-gold pruinose (including ocellar tubercle), black setose. Occiput entirely pruinose, white setose except for some black setae dorsally. Proboscis brown-orange with red-brown distal third, setae white; palpi brown-orange, setae white.

Thorax: Mainly dark red-brown, silver and red-gold pruinose, black and white setose. Mesonotum extensively red-gold pruinose with silver lateral margins, except for pair of thin anteromedial stripes, tiny parts of postpronotal and postalar lobes, three lateral spots (two postsuture, one weakly pruinose area anterior of transverse suture), setae thin black except for pair of pale white notopleurals. Pleura silver pruinose except for single spot on katepisternum, white setose. Scutellum red-gold pruinose (contrasting with silver anatergites) except for apruinose hind margin, with 4 long black *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* red-brown, silver pruinose, white setose; *troc* orange-brown and dark red-brown; *fem* orange, 2 and 3 with dark red-brown ventral surfaces (more extensive on leg 3), mostly white setose (*fem* 3 with row of black setae ventrally); *tib* similar to *fem*, predominantly white (some long) setose (a few black setae ventrodistally); *tar* brown-orange except for leg 3 that are red-brown, partly white and black setose. Wing 4.8 x 1.5 mm, veins brown, membrane transparent, unstained, extensively microtrichose. Discal cell extensively microtrichose except for small area anteroproximally, costal cell entirely lacking microtrichia.

Abdomen: Dark red-brown, entirely silver and red-gold pruinose, black and white setose. Tergites mostly red-gold pruinose except for contrasting silver lateral margins, setae mainly short black except for longer white ones laterally. Sternites entirely orange-silver pruinose, white setose. Terminalia (Figs 9–11): *epand* in lateral view gradually tapering to fairly acutely-rounded tips, lobes narrowly fused proximally; *hypd* in lateral view slightly shorter than *epand*, moderately upturned distally, with small dorsal subapical projection; broad basally in ventral view but tapering rapidly to distal projection that is longer than broad base. External lobe of *goncx* projecting beyond levels achieved by *epand* and *hypd*, tapering to fairly acute tip, well sclerorised internal lobe about as long as external lobe and with slightly hooked apex. Gonostyli in ventral view moderately straight.

Holotype: ♂ SOUTH AFRICA: *KwaZulu-Natal*: 'South Africa: Natal / Pietermaritzburg [2934S:3019E] / Townbush Valley / RM Miller + malaise / July 1977'.

Distribution, phenology and biology (Tables 1, 2): Recorded only from the South African type locality. Collected in July (midwinter), which might explain the absence of more specimens.

Similar species: *R. pulverulentus*.

Rhabdogaster charma sp. n.

Figs 12–14

Etymology: From Greek *charma* (source of joy, delight). Refers to the attractive appearance of this species.

Description: Based mainly on holotype ♂.

Head: Black, silver pruinose, white and pale yellow setose. Antenna black, setae white. Face with small central apruinose spot. Mystax entirely white, occupying lower two-thirds of face. Frons strongly pruinose in ventral half; vertex entirely apruinose. Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae pale yellow-white.

Thorax: Black, silver and gold pruinose, white and pale yellow setose. Mesonotum extensively pruinose (gold anteriorly) with clearly defined apruinose areas (a pair of anteromedial stripes and four lateral spots, including postpronotal and postalar lobes), notopleurals pale yellow, other setae white. Pleura with a large apruinose area on anepisternum. Scutellum extensively apruinose except for narrow anterior margin, with approx. 12 moderately developed *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* orange; *fem* dark red-brown with broad orange proximal and distal ends, white setose (a row of approx. 7 short pale yellow macrosetae centrally); *tib* orange with small, dark red-brown distal tip, predominantly white setose (a few black setae distally); *tar* red-brown, partly white and black setose. Wing 3.8 x 1.5 mm, brown, membrane transparent, unstained, extensively microtrichose (except for some proximal areas). Discal and costal cells entirely microtrichose.

Abdomen: Dark red-brown to black, silver pruinose, white and dark red-brown setose. Tergites largely apruinose except for two large anterolateral subtriangular areas (separated medially), dark red-brown setae on apruinose areas, white on pruinose areas. Sternites entirely pruinose, short white setose. Terminalia (Figs 12–14 Uitkyk paratype): *epand* in lateral view gradually tapering to slightly downcurved, fairly acutely-rounded tips; lobes narrowly separated proximally; *hypd* in lateral view about as long as *epand* and *goncx*, slightly upturned distally, dorsally with raised subapical ridge (*hypd* is laterally flattened subapically); broadly-rounded basally in ventral view, tapering to fairly broad bilobed apex. External lobe of *goncx* of similar length as *epand*, tapering to slightly downcurved, fairly sharp apex, moderately sclerotised internal lobe small, projecting ventrally and in lateral view seen projecting below outer lobe. Gonostyli (not illustrated) slender, gently curved.

Holotype: ♂ SOUTH AFRICA: *Limpopo*: 'South Africa 2429AA / Transvaal Uitkyk Rd. / 10 km N Potgietersrus / 28.I.1978 JGH. Londt / Rocky side of koppie / grass trees and bush'.

Paratypes: SOUTH AFRICA: *Limpopo*: 3♂ same data as holotype; *Gauteng*: 2♂ 'Pretoria [2532S:2811E] / Silverton / 9.12.15 [9.xii.1915] / H.K. Munro' (NMNH).
Note: One of the NMHN males is poorly preserved and lacks its head and all its legs. In the absence of a good series it is included as a paratype.

Distribution, phenology and biology (Tables 1, 2): Recorded only from two South African localities. Collected in December and January (mid-summer) in a summer rainfall area.

Similar species: Distinctive.

Rhabdogaster cinerascens (Wulp, 1899)

Figs 125–127

Psilinus cinerascens Wulp, 1899: 86, fig. 7 whole specimen, figs 8, 9 head; Hull 1962: 213; Oldroyd 1980: 369 (catalogue). Type locality: Yemen (Aden).
Rhabdogaster cinerascens: Londt 1993: 386, 387.

Redescription: Based on Nr Muhail ♂.

Head: Dark red-brown to black, silver pruinose, white setose. Antenna dark red-brown to black, setae white (few black dorsally on pedicel). Face entirely pruinose. Mystax entirely white, occupying lower half of face. Frons and vertex entirely pruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver pruinose, predominantly white setose (dorsocentrals and scutellars black). Mesonotum entirely pruinose (including postpronotal lobes). Pleura entirely pruinose. Scutellum pruinose except for hind margin, with 2 major *sctl s* accompanied by approx. 6 more minor setae. Postmetacoxal bridge entirely silver-gold pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* and *fem* dark red-brown, white setose; *tib* yellow-brown proximally, dark red-brown distally, predominantly white setose (a few black setae ventrodistally); *tar* dark red-brown, partly white (mainly dorsally) and black (mainly ventrally) setose. Wing 3.8 x 1.3 mm, veins orange-brown, membrane transparent, unstained, almost devoid of microtrichia (except for some distally). Discal cell sparsely microtrichose, costal cell entirely lacking microtrichia.

Abdomen: Dark red-brown to black, silver pruinose, white setose. Tergites apruinose middorsally and along hind margins. Sternites entirely pruinose. Terminalia (Figs 125–127): *epand* in lateral view about as long as external lobe of *goncx*, gradually tapering to fairly broadly-rounded tips; lobes proximally fairly broadly fused basally; *hypd* in lateral view shorter than *epand*, shorter than both *epand* and *goncx*, gently upcurved distally; in ventral view broader than long, tapering rapidly to elongate, slightly clubbed median projection. External lobe of *goncx* about equal in length to *epand* lobe, tapering distally to fairly acute apex; internal lobes short and straight, projecting a little beyond external lobes. Gonostyli in ventral view projecting to about the same level achieved by external lobes of *goncx*.

Variation: There is some variation in size. The described ♂ is one of the smaller specimens (wing 3.8 x 1.3 mm), the holotype ♀ (see Londt 1993) is a little bigger (wing 4.5 x 1.4 mm), while the Oman ♀ is the largest specimen measured (wing 5.1 x 1.7 mm).

Holotype: ♀ YEMEN: 'Aden [1246N:4501E]' (OXUM).

Other recorded material: ERITREA: 1♀ 'Eritrea / Mobra Alain [? badly written] / 8/2/54' (BMNH); OMAN: 1♀ 'Oman Sharqiya [2230N:5815E] / Ras al Junayz / 12.xi.1987 / M.J. Ebejer'; 1♂ 'Dhofar 700m. / Ayun Pools [= Wadi Uyun 1721N:5342E] / 10.10.1977 / K. Guichard' (BMNH); SAUDI ARABIA: 3♂ 1♀ Nr Muhail [not found in gazetteer] / 18 30N 41 45E / 22.xii.71' (BMNH, 1♂ NMSA); 1♀ 'Lucust / Research / Station / Jeddah [= Jiddah 2131N:3913E] / Saudi Arabia' ~ ' [illegible scribble that could be a locality name] / 8.vi.72' (BMNH).

Distribution, phenology and biology (Tables 1, 2): Recorded from Eritrea, Oman, Yemen and Saudi Arabia. Only one of these localities is in Africa (plotted in Fig. 128), while others are on the Arabian peninsula. The Yemen and Oman records are considered afrotropical as they fall into the regions as defined in the Catalogue of Afrotropical Diptera, while those from Saudi Arabia should perhaps be considered Palaearctic. The Saudi Arabian records require confirmation as 'Muhail' cannot be found in gazetteers (the coordinates provided on the label locate the specimens in Saudi Arabia), and 'Jeddah' probably indicates the location of the Locust Research Station and not the place of collection. Collected in February, June, October, November and December.

Similar species: *R. sinis* sp. n.

Rhabdogaster cornuata sp. n.

Figs 15–17

Etymology: From Latin *cornuata* (horn). Refers to the horn-like tips of gonocoxal appendages (best viewed laterally).

Description: Based on holotype ♂. The specimen has a cracked head and the left antenna is broken off beyond the pedicel. The head and thorax are slightly greasy making an assessment of pruinescence difficult.

Head: Black, silver pruinose, white setose. Antenna black, setae white. Face entirely pruinose. Mystax entirely white, occupying most of face. Frons and vertex extensively pruinose except for an apruinose stripe between eyes that includes ocellar tubercle. Occiput entirely pruinose. Proboscis and palpi black, setae white.

Thorax: Black, silver pruinose, white setose. Mesonotum with extensive apruinose areas including postpronotal and postalar lobes, a pair of dorsomedial stripes and two large areas anterior and posterior of transverse suture. Pleura extensively pruinose except for apruinose spots on an- and katepisternum. Scutellum pruinose except for hind margin, with approx. 10 *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* red-brown; *fem* orange with broad dark red-brown proximal band (more extensive on leg 3); *tib* orange (leg 3 with dark red-brown distal ends); *tar* red-brown (leg 3 dark red-brown); mainly white black (a few black setae). Wing 3.9 x 1.4 mm, veins brown-yellow, membrane transparent, unstained, almost devoid of microtrichia (except for some distally). Discal and costal cells entirely without microtrichia.

Abdomen: Black, silver pruinose, white setose. Tergites apruinose middorsally and along hind margins. Sternites entirely pruinose. Terminalia (Figs 15–17): *epand* in lateral view gradually tapering in slightly undulating fashion to fairly acutely-rounded tips; lobes proximally fairly broadly fused and more strongly sclerotised; *hypd* in lateral view about as long as external lobe of *goncx*, fairly straight, with dorsal subapical ridge; broad basally in ventral view, tapering in two stages to narrowly truncate apex. External lobe of *goncx* shorter than *epand* lobe and of similar length as *hypd*, tapering to weakly-sclerotised broadly-rounded apex; well-sclerotised internal lobes well-developed, projecting beyond external lobes in a manner reminiscent of bovine horns. Gonostyli in ventral view long (project well beyond horn-like internal lobe of *goncx*), and straight.

Variation: The female paratypes agree well with the holotype. The face may possess two apruinose spots dorsally.

Holotype: ♂ SOUTH AFRICA: *Western Cape*: 'Cape Town [3355S:1825E] / Table Mtn. / 25 Mar. 1979 / J. Londt'.

Paratypes: 2♀ same data as holotype.

Distribution, phenology and biology (Tables 1, 2): Recorded only from the South African type locality (on Table Mountain in the vicinity of the lower cable-car station). Collected in March.

Similar species: *R. poa* sp. n., *theroni* sp. n. and *yeti* sp. n.

Rhabdogaster cuthbertsoni sp. n.

Figs 18–20

Etymology: Named after Alexander Cuthbertson, whose collecting activities and interest in Asilidae greatly added to our understanding of the robber flies of Zimbabwe.

Description: Based on holotype ♂.

Head: Black, gold-silver pruinose, white and black setose. Antenna dark red-brown to black, setae black. Face pruinose except for pair of small spots centrally. Mystax entirely white, occupying lower half of face. Frons and vertex entirely pruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi red-brown, setae white.

Thorax: Dark red-brown to black, silver and gold pruinose, white and black setose. Mesonotum extensively pruinose except for pair of narrow anteromedial stripes (broad anteriorly), 2 moderately large spots on either side of transverse suture, tiny spots on parts of postpronotal and postalar lobes, tiny spot anterior of postalar lobe, setae long, mostly black (except for pale yellow notopleurals). Pleura pruinose except for moderately sized spot on katepisternum. Scutellum entirely pruinose, with 2 long black *sctl s* accompanied by 2 minor setae. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* dark red-brown; *fem* 1 and 2 brown-yellow with dark red-brown anterior surfaces, white setose, *fem* 3 entirely dark red-brown, white setose except for row of approx. 8 black ventral macrosetae; *tib* similar to *fem*, predominantly white setose (a few black setae distally); *tar* dark red-brown, white and black setose. Wing 5.4 x 1.7 mm, veins brown, membrane transparent, unstained, almost entirely microtrichose. Discal cell entirely microtrichose, costal cell entirely lacking microtrichia.

Abdomen: Dark red-brown to black, gold-silver pruinose, white and dark red-brown setose. Tergites with apruinose mediodistal parts, setae dark red-brown on apruinose parts, white on pruinose parts. Sternites entirely pruinose, moderately long white setose. Terminalia (Figs 18–20), generally reminiscent of type-species (*nuda*): *epand* in lateral view gradually tapering to rounded tips; lobes fairly broadly fused medially; *hypd* in lateral view shorter than *epand* and external lobe of *goncx*, slightly upcurved distally, with dorsal subapical ridge (*hypd* laterally flattened subapically); broad basally in ventral view, tapering in two stages to moderately long mediodistal lobe. External lobe of *goncx* slightly shorter than *epand*, tapering to fairly sharp apex; well-sclerotised internal lobes with bilobed tip and projecting beyond external lobe. Gonostyli in ventral view thick basally, slightly curved.

Holotype: ♂ ZIMBABWE: 'Salisbury [Harare 1750S:2103E], Rh. [Rhodesia = Zimbabwe] / II.1915. / leg. O'Neil.'.

Paratypes: 2♀ same data as holotype.

Distribution, phenology and biology (Tables 1, 2): Recorded only from the Zimbabwean type locality. Collected in February.

Similar species: Distinctive.

Rhabdogaster eremia sp. n.

Figs 21–23

Etymology: From Greek *eremia* (wilderness, solitude). Refers to the remoteness of localities from which this species has been found.

Description: Based mainly on holotype ♂.

Head: Dark red-brown to black, gold-silver pruinose, white setose. Antenna dark red-brown to black, setae black. Face entirely pruinose. Mystax entirely white, occupying lower half of face. Frons and vertex entirely pruinose (ocellar tubercle only weakly so). Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver and gold (mainly mesonotum) pruinose, white setose. Mesonotum extensively gold pruinose except for pair of anteromedial stripes, 2 large lateral spots either side of transverse suture, small areas on postpronotal lobes and postalar lobes as well as a small area anterior of postalar and another posterior of postpronotal lobe. Pleura entirely silver pruinose. Scutellum silver pruinose except for narrow hind margin, with 3 major *sctl s* accompanied by approx. 6 minor setae. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* and *fem* dark red-brown (distal tips of *fem* narrowly orange-brown), white setose; *tib* dark red-brown with orange-brown proximal ends, predominantly white setose (a few black setae ventrodistally); *tar* dark red-brown, white and black setose. Wing 5.7 x 1.8 mm, veins brown, membrane transparent, unstained, microtrichia mainly restricted to distal half. Discal cell extensively microtrichose except for proximal part, costal cell lacking microtrichia except for a few at extreme distal end.

Abdomen: Dark red-brown to black, silver-gold pruinose, white setose. Tergites with narrow apruinose hind margins, setae small medially, longer laterally. Sternites entirely pruinose, setae moderately long. Terminalia (Figs 21–23 Noachabib paratype): *epand* in lateral view gradually tapering to slightly downturned rounded tip; lobes broadly fused medially; *hypd* in lateral view of similar length as external lobe of *goncx*, slightly upcurved distally, with long subapical finger-like projection dorsally; broadly-rounded basally in ventral view, tapering in two stages to long mediodistal lobe with enlarged bilobed apex. External lobe of *goncx* slightly shorter than *epand* lobe, slightly upwards curved distally, tapering to a slightly downcurved rounded apex; well-sclerotised internal lobe with bilobed tip projecting beyond external lobe. Gonostyli in ventral view thick, slightly curved, with tiny dorsodistal projection.

Variation: A uniform species. The vertex may be partly apruinose (especially ocellar tubercle) in both sexes but particularly in females.

Holotype: ♂ NAMIBIA: 'Namibia 22.iv.1983 / 48 km W of Windhoek / 2216DA Stuckenberg / & Londt Thornveld in / dry river valley'.

Paratypes: NAMIBIA: 1♀ same data as holotype; 2♂ 1♀ 'Karasberge [2818BD], S.W.A. / Farm Noachabib / 8–10.iv.1972 / Jones & Strydom'.

Distribution, phenology and biology (Tables 1, 2): Recorded only from two localities in southern Namibia. Collected in April.

Similar species: *R. pedion* sp. n., *quasinuda* sp. n., *rustica*.

Rhabdogaster etheira sp. n.

Figs 24–26

Etymology: From Greek *etheira* (mane). Refers to the long black dorsocentral setae of this species.

Description: Based mainly on holotype ♂.

Head: Black, silver pruinose, white and black setose. Antenna black, setae black. Face entirely pruinose. Mystax sparse, entirely white, occupying lower half of face. Frons and vertex entirely pruinose (including ocellar tubercle), fine black setose. Occiput entirely pruinose, white setose. Proboscis and palpi dark red-brown, setae white.

Thorax: Black, silver and gold pruinose, black and white setose. Mesonotum extensively gold and silver pruinose (patches) except for short narrow anteromedial stripes and small parts of postpronotal and postalar lobes (fairly large weakly pruinose areas are also present laterally, anterior of transverse suture), mesonotal setae long, mostly black (except for pale yellow notopleurals), especially dorsocentrals that extend for entire length of mesonotum. Pleura silver and gold pruinose except for a small spot on katepisternum. Scutellum entirely pruinose, with 2 long black *sctl s* accompanied by approx. 4 minor setae. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* dark red-brown; *fem* 1 and 2 orange-brown with dark red-brown anterior surfaces, *fem* 3 entirely dark red-brown, white setose (2 or 3 black macrosetae ventrodistally); *tib* brown-yellow with dark red-brown distoventral parts, predominantly white setose (a few black setae distally); *tar* red-brown, mostly black setose. Wing 5.1 x 1.6 mm, veins mainly brown, membrane transparent, unstained, almost devoid of microtrichia (except for some distally). Discal cell entirely microtrichose, costal cell almost entirely without microtrichia (a few distally).

Abdomen: Dark red-brown to black, silver-gold pruinose, white setose. Tergites apruinose except for narrow hind margins. Sternites entirely pruinose. Terminalia (Figs 24–26 paratype): *epand* in lateral view gradually tapering to rounded tips; lobes broadly fused medially; *hypd* in lateral view shorter than external lobe of *goncx*, of complex structure distally (Fig. 24); broadly-rounded basally in ventral view, tapering to trifurcate apex. External lobe of *goncx* slightly shorter than *epand* lobe, tapering gradually to somewhat truncate apex; well-sclerotised internal lobes with enlarged apices project beyond external lobes. Gonostyli in ventral view thick in basal half, slightly curved, projecting beyond level attained by inner lobe of *goncx*.

Holotype: ♂ SOUTH AFRICA: *Northern Cape*: 'Sth Africa: N Cape / 10 km ESE Port Nolloth / 29°17'07"S:16°58'42"E / 26.viii.2002 JGH Londt / 120 m White sand woody / plants & succulents'.

Paratypes: NAMIBIA: 3♀ 'S. W. Africa (W48) / Kombat [1943S:1742S] / 1–6.iv.1972', 'Southern / African Exp. / B.M. 1972-1.' (BMNH); SOUTH AFRICA: 1♂ 1♀ same data as holotype.

Distribution, phenology and biology (Tables 1, 2): Recorded only from Namibia and South Africa. Collected in April and August.

Similar species: *R. kalyptos* sp. n.

Rhabdogaster flavida (Lindner, 1973), **comb. n.**

Figs 27–30

Heteropogon flavidus Lindner, 1973: 77; Oldroyd 1974: 44 (footnote mention only); 1980: 362 (catalogue). Type locality: Namibia (Ongeama).
Afroholopogon flavidus: Londt 1994*a*: 64.

Redescription: Based primarily on holotype, but, as it is somewhat greasy, also on the topotypic paratype ♂.

Head: Dark red-brown and orange, gold-silver pruinose, pale yellow-white setose. Antenna: Scape and pedicel yellow, postpedicel and style dark red-brown, setae pale yellow-white. Face orange with dark red-brown central spot, entirely pruinose. Mystax entirely pale yellow-white, occupying lower half of face. Frons and vertex dark red-brown, entirely fine pruinose (including orange ocellar tubercle). Occiput dark red-brown with orange area posterior of ocellar tubercle, entirely pruinose. Proboscis orange-brown, but slightly darker dorsally, pale yellow-white setose. Palpi orange, setae pale yellow-white.

Thorax: Dark red-brown and orange, gold-silver pruinose, pale yellow-white setose. Mesonotum dark red-brown centrally, orange laterally, pruinose except for dark red-brown areas centrally, postpronotal and postalar lobes. Pleura patchy orange and dark red-brown, pruinose except for central spot on both an- and katepisternum. Scutellum pruinose except for narrow hind margin, 2 yellow major *sctl s* accompanied by approx. 10 tiny setae. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* brown-yellow, gold-silver pruinose, pale yellow-white setose; *troc*, *fem*, *tib* and *tar* brown-yellow, pale yellow-white setose (a few black setae ventrodistally on *tib* and ventrally on *tar*). Wing 5.8 x 2.1 mm, veins orange-brown, membrane transparent, unstained, extensively microtrichose distally. Discal cell with microtrichia absent proximally, costal cell entirely lacking microtrichia.

Abdomen: Brown yellow with dark red-brown areas, gold-silver pruinose, pale yellow-white setose. Tergites brown-yellow with dark red-brown areas anterolaterally, pruinescence confined to brown-yellow areas. Sternites brown-yellow except for small red-brown area medioproximally, entirely pruinose. Terminalia (Figs 27–30 holotype): *epand* in lateral view shorter than *hypd*, gradually tapering to fairly acutely-pointed tips; lobes separated medially, but touching basally; *hypd* in lateral view slightly longer than *epand*, slightly upcurved distally, with small dorsal swelling subapically; broadly-rounded basally in ventral view, tapering to broadly-rounded apex. External lobe of *goncx* long, projecting beyond levels achieved by other genital structures, terminating in a broadly-rounded apex; well-sclerotised internal lobes short and hidden by external lobes in lateral view. Gonostyli in ventral view thick in basal half, slightly curved, ptojecting beyond level attained by inner lobe of *goncx*.

Variation: Paratype ♂ agrees with holotype but is slightly smaller (wing length 5.5 mm) and in poor condition (right wing broken off near base). The Aus male has slightly different terminalia (in lateral view apex of hypandrium not bilobed and external lobe of gonocoxite shorter) and may represent a separate species.

Holotype: ♂ NAMIBIA: 'Ongeama [1715S:1225E] SWA / 23. – 28.1.1970 / Lindner leg.', '*Heteropogon* / Sp. 2 / det. H. Oldroyd 1970', '*Heteropogon* / *flavidus* Lind. / Lindner det.' [white, black border].

Paratype: NAMIBIA: 1♂ same data as holotype.

Notes: The holotype is labelled 'Typus / Lindner / 1973' [red ink, date sideways], while the paratype is labelled 'ParaTypus / Lindner / 1973' (SMNS). Although Lindner (1973) did not indicate that the two males listed were types, they are clearly labelled and so I accept their status as holo- and paratype respectively.

Other material studied: NAMIBIA: 1♀ 'S. W. Africa (34); / Regenstein, 15 mls., / SSW. Windhoek, [2234S:1705E] / 8.ii.1972', 'Southern / African Exp. / B.M. 1972-1.' (BMNH); 1♂ 'Aus [2640S:1616E], S.W.A. / 22 April, 1933 / G. van Son'.

Distribution, phenology and biology (Tables 1, 2): Recorded from three fairly widely separated localities in Namibia. Collected in January, February and April.

Similar species: Distinctive, but somewhat similar to *maculipennis*.

Rhabdogaster glabra sp. n.

Figs 31–33

Etymology: From Latin *glaber* (hairless, bald, smooth). Refers to the generally smooth, hairless appearance of this species.

Description: Based on holotype ♂.

Head: Dark red-brown, silver-gold pruinose, pale yellow setose. Antenna: Scape and pedicel brown-yellow, postpedicel and style brown, setae weakly black. Face entirely pruinose. Mystax pale yellow, composed of approx. 10 setae occupying lower facial margin. Frons and vertex entirely pruinose (including ocellar tubercle), minutely pale yellow setose. Occiput entirely pruinose. Proboscis and palpi orange-brown, setae fine pale-yellow.

Thorax: Red-brown, silver-gold pruinose, pale-yellow setose. Mesonotum extensively pruinose except for narrow pair of anteromedial stripes, small spots on postpronotal and postalar lobes, small spots laterally (one anterior of transverse suture, two postsuture), apart from moderately developed notopleurals (1 or 2), supraalars (1), and a pair of dorsocentrals (posteriorly) all setae insignificant. Pleura almost entirely pruinose (there is a tiny apruinose spot on katepisternum). Scutellum entirely pruinose with 4 *sctl s* accompanied by a few minor setae. Postmetacoxal bridge entirely silver-gold pruinose. Legs: *cx* orange-brown, silver-gold pruinose, weakly white setose; *troc*, *fem, tib* and *tar* orange; *fem* and *tib* predominantly white setose (a few black setae ventrodistally on *tib*), *tar* mainly black setose. Wing 6.7 x 2.0 mm, veins brown-yellow, membrane transparent, unstained, extensively microtrichose (except for some proximal parts). Discal cell entirely microtrichose, costal cell lacking microtrichia except for a few distally.

Abdomen: Dark red-brown, entirely silver-gold pruinose, pale yellow-white setose (short except for a few laterally on tergites). Terminalia (Figs 31–33): *epand* in lateral view shorter than external lobe of *goncx* and of similar length to *hypd*, gradually tapering to fairly acutely-pointed tips; lobes separated medially but touching basally; *hypd* in lateral view about same length as *epand*, almost straight with slightly upcurved apex; broadly-rounded basally in ventral view, tapering to fairly acutely-pointed apex. External lobe of *goncx* well-developed, projecting beyond levels achieved by *epand* and *hypd*, terminating in a broadly-rounded apex; well-sclerotised internal lobes projecting beyond external lobes, with narrowly-rounded epices. Gonostyli in ventral view slender, slightly curved, projecting to level attained by inner lobe of *goncx*.

Holotype: ♂ NAMIBIA: 'Namibia 18.iv.1983 / 5 km S Windhoek 2217CA / Londt & Stuckenberg / Mixed Thornveld.

Paratypes: NAMIBIA: 1♀ 'Namibia 22.iv.1983 / 48 km W of Windhoek / 2216DA Stuckenberg / & Londt Thornveld in / dry river valley'; 1♀ same data as holotype.

Distribution, phenology and biology (Tables 1, 2): Known only from two localities in the central region of Namibia. Collected in April.

Similar species: *R. zilla* sp. n.

Rhabdogaster gracilis (Engel & Cuthbertson, 1937)

Figs 34–39

Heteropogon gracilis Engel & Cuthbertson, 1937: 13, 14, fig. 9*a* Antenna; Hull 1962: 194; Oldroyd 1974: 47 (in key), fig. 37 entire female; 1980: 362 (catalogue). Type locality: Zimbabwe (Trefonen Farm, Trelawney).
Afroholopogon gracilis: Londt 1994*a*: 64.
Rhabdogaster gracilis: Londt 2005: 228.

Redescription: Based on holotype ♂.

Head: Dark red-brown to black, silver pruinose, white setose. Antenna dark red-brown, setae white. Face entirely pruinose. Mystax entirely white, occupying lower two-thirds of face. Frons extensively pruinose, vertex (including ocellar tubercle) entirely shiny apruinose. Occiput entirely pruinose. Proboscis and palpi red-brown, setae white.

Thorax: Dark red-brown to black, silver pruinose, white setose. Mesonotum pruinose except for apruinose central area, postpronotal and postalar lobes. Pleura extensively pruinose (single bare spot on anepisternum). Scutellum pruinose except for posterior margin, approx. 10 moderately developed, white, *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose (*cx* 2 and 3 extensively apruinose laterally), white setose; *troc*, *fem*, *tib* and *tar* dark red-brown, mainly white setose; *fem* and *tib* narrowly orange proximally; *tib* (ventrodistally) and *tar* with some black setae. Wing 4.0 x 1.3 mm, veins yellow-brown, membrane transparent, unstained, extensively lacking microtrichia (proximally). Discal cell lacking microtrichia proximally; costal cell entirely devoid of microtrichia.

Abdomen: Dark red-brown to black, dull silver-gold pruinose, white setose. Tergites apruinose along hind margins. Sternites entirely pruinose. Terminalia (Figs 34–36): *epand* in lateral view much longer than external lobe of *goncx* and of similar length to *hypd*, gradually tapering to fairly acutely-pointed tip; lobes separated medially but touching basally; *hypd* in lateral view fairly narrow, about same length as *epand*, slightly upcurved distally; broadly-rounded basally in ventral view, tapering to long, parallel-sided distomedial projection with rounded apex. External lobe of *goncx* much shorter than *epand*, terminating in acutely-pointed apex; well-sclerotised internal lobe clearly seen to be fused with external lobe, projecting beyond external lobe, with somewhat truncate apex. Gonostyli in ventral view with thick bases and slender apices, fairly straight, projecting to similar level attained by inner lobes of *goncx*.

Variation: Some variation is evident over the fairly extensive range of the species. The extent of mesonotal and tergal apruinosity varies, as does the extent of the orange coloration of legs. Setal coloration varies from white to brown. Some variation in genital morphology is shown in Figs 37–39. The identification key works for most of the specimens, but some may prove difficult to identify without macerating the male terminalia.

Holotype: ♂ ZIMBABWE: 'Trefonen Farm / Trelawney [1730S:3027E] / S. Rhodesia. / Dept. Agric. / 22/ 11/1935', 'W.L. Williams / collector', 'Type von / *Heteropogon* / *gracilis* Engel' [orange], '973' (NMBZ).

Note: In their paper, Engel & Cuthbertson (1937) record the type locality as 'Trefonen farm near Trelawney, Lomagundi' and the date of collection as 'December 1935'. Lomagundi [1710S:3005E] is not recorded on the specimen labels, while the month of collection (written by hand in black ink) may either be read as November or February (not December).

Other material studied: BOTSWANA: 1♂ 'Botswana: Serowe #56 / Farmer's Brigade / 22°25'S:26°44'E 1000m / Date: 28.xi.1990 / Coll: P. Forchhammer / Malaise Trap'; 1♂ 'Malaise trap 3 / Botswana SE2226BD / Farmers Brigade / ca. 6 km SE of Serowe / Coll. P. Forchhammer / 20-v-1984 / *A. tortilis* woodland'; 1♂ 'Malaise trap 1 / Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / 31-v-1984 / Mercury vapour lamp'; 1♂ 'Malaise trap 1 / Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / 6-v-1984 / Mercury vapour lamp'; 1♀ 'Botswana SE2226BD / Farmers Brigade / ca. 5 km SE of Serowe / P. Forchhammer 13oom / *A. tortilis* woodland / Malaise trap 3 / Forestry 8-xi-84'; 2♂ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 3 / v-86'; 1♂ 1♀ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 2 / 4-xii-84 / Mercury vapour lamp'; 1♂ 'Malaise trap / Serowe; Botswana / Forchhammer Leg. / Date 7-xi/83'; 2♀ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 2 / xi-86'; 1♀ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / M.T.2 xii-86'; 1♂ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 2 / vapona xi-85'; 1♂ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / 17-xi-84 / Malaise trap 1 / Mercury vapour lamp'; 1♂ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / 16-xi-84 / malaise trap 1 / Mercury vapour lamp'; 1♂ 1♀ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 1 / xi-85'; 1♀ 'Botswana

SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / 16-xi-84 / Malaise trap 2 / Mercury vapour lamp'; 2♂ 'Botswana SE2226BD / Forestry nursery / ca. 6 km SE of Se- / rowe. Malaise trap 3. / Forchhammer. 13oom. / 27-xi-84'; 1♂ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 1 / 7-vii-1984'; 1♂ 1♀ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 3 / ix-86'; 1♂ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 3 / vi-86'; 1♀ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 2 / xi-86'; 2♂ 1♀ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 2 / vapona xi-85'; 1♂ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / xi-87'; 3♂ 2♀ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 2 / vapona xii-1985'; 3♂ 1♀ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 3 xii.1985'; 2♂ 1♀ 'Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 3 i.1986'; 1♀ 'Botswana SE2226BD / Serowe. Farmer's / Brigade. Malaise / trap. Forchhammer / 8 x-88'; 3♀ 'Botswana SE2226BD / Serowe. Farmer's / Brigade. Malaise / trap. Forchhammer / 9 xi-88'; 2♂ 1♀ 'Botswana SE2226BD / Serowe. Farmer's / Brigade. Malaise / trap. Forchhammer / xi-89'; 5♂ 1♀ 'Botswana: Central / Distrikt, Serowe / Farmer's Brigade / SE2226BD, Mercury V.L. / xi.1989, Per Forchhamer leg.' (NHRS); 10♂ 4♀ 'Botswana / Serowe / M.T.6.xi.78'; 5♂ 9♀ 'Botswana / Serowe / M.T.6.xii.78'. KENYA: 1♂ 'Kenya Kampi-Ya- / Samai (Lake Baringo) / 00°37'N:36°02'E 980m / 30.v.–2.vi.1980 / B/ Lamoral Malaise'; 1♂ 'Kenya / 50 km S. / Maralal [0106N:3642E] / 24.xii.83 / A. Freidberg'; 1♂ 1♀ 'Kenya Eastern / Katulani [0132S:3738E] Kitui distr. / malaise trap 26.x.1990 / J.A.M. Jansen'; 1♂ 'Kenya, Tsavo / West, Ngulia [0212S:3744E] / 6.xii.1989 / A. Freidberg / & F. Kaplan'. MALAWI: 1♀ 'Malawi Kasungu Nat. / Park Lifupa Camp / 1333Aa 9–10.xii.1980 / 1000m Stuckenberg & / Londt *Brachystegia*'. NAMIBIA: 1♀ 'Namibia 26.iii.1984 / 54 km S Khorixas. Rd . 76. 20 43'S:14 49'E / Londt & Stuckenberg / Roadside grass and / flowers, sandy area'; 'S.W. Africa (W56) / 16 mls. E Gobabis [2227S:1858E] / 11.iv.1972', 'Southern / African Exp. / BM. 1972-1' (BMNH). SOUTH AFRICA: *Mpumalanga*: 1♀ 'Timbavat [? Timbavati] / SE2431Ac / v-1979 / E. Holm. CH Scholtz'; *North-West*: 1♂ 'S Africa: NW Province / Botsalano Game Reserve / Mogolodi Hide area / 25°33'15"S:25°40'16"E / 1350m 18.iii.2003 J Londt / *Rhus*, *Acacia* savanna'; 1♀ 'Marico [Groot Marico 2536S:2625E] / Transvaal / Jan. 1918' (NMNH), 12♂ 7♀ 'S Africa: N-W Province / Pilanesberg National Park / Bakubung 12–19.xi.1999 / 25°20'40"S:27°03'25"E / JGH Londt Camp'; SUDAN: 1♂ 'W. Darfur: / Jebel Murra, [? = Jabal Murrah 1419N:2227E] / Killing. [? = Jabal Killing 0410N:3012E] / 7000 ft. 7.iv.1932. / Miss. M. Steele' (MBNH); TANZANIA: 2♂ 'Tanzania, Mkomazi / Game Reserve, Ibaya Hill / 3º58.20'S 37º47.80'E. / 26.xi.1995, S. van Noort', Sweep mk6. mixed grass / -land & shrubs in open / *Combretum* bushland & / *Commiphora* woodland' (SAMC); 1♂ 'Tanzania: / Same [0404S:3744E], Rt. B1 / 8–16.ix.1992 / A/ Freidberg'; 3♂ 1♀ 'Tanzania, Mkomazi / Game Reserve, / Kisima Plot. / 04º06.06'S 38º05.58'E.', '25 Nov – 8 Dec 1995. / S. van Noort. / Malaise trap. *Acacia/* / *Commiphora* bushland' (SAMC); 1♂ 'Tanzania, Mkomazi / Game Reserve, / Kikolo Plot. / 04°06.72'S 38°01.37'E.', '25 Nov – 8 Dec 1995. / S. van Noort. / *Commiphora* woodland. / Malaise trap' (SAMC). ZAMBIA: 1♀ 'Zambia: 18mi. SW. / of Mkushi [1422S:2922E], 1300m. / 14-xi-1967 / E.S. Ross & / A.R. Stephen' (CASC); ZIMBABWE: 1♂ 'Birchenough / Bridge [1958S:3220E], S. Rhod. / 1-1938, G. v. Son'.

Notes: 1. Some Forchhammer specimens are labelled as being both from a Malaise trap and a mercury-vapour lamp. Wording relating to Malaise trap collections are hand written, while words relating to mercury-vapour lamp collections are printed as the last line of what was obviously meant to be a general-purpose label. I believe that in these cases the material was Malaise-trap collected, and that the last line of the label should have been removed. 2. Some female specimens from localities where males have not been collected may not be correctly identified.

Other material recorded: Oldroyd (1974) gives '? S.W. AFRICA: 25 km E. of Gababis (B.M. A. Afr. Exped., 1972)' and Londt (2005), in reviewing *Afroholopogon,* stated 'I have also examined a female in the BMNH which appears to be the specimen Oldroyd (1974) illustrated (his fig. 37). The label reads 'S.W. Africa (W56) / 16 mls. E Gobabis / 11.iv.1972', 'Southern / African Exp. / BM. 1972-1' and is therefore not exactly as cited by Oldroyd (see above)'. This specimen is listed above but in the absence of a topotypic male may not truly represent the species.

Distribution, phenology and biology (Tables 1, 2): Recorded from Botswana, Kenya, Malawi, Namibia, South Africa, Sudan, Tanzania, Zambia and Zimbabwe. Collected throughout the year (no records for February or August). Although diurnally active the species may have been found in mercury-vapour light traps.

Similar species: Distinctive.

Rhabdogaster kalyptos sp. n.

Figs 40–42

Etymology: From Greek *kalyptos* (covered). Refers to the extensive covering of pruinescence of this species.

Description: Based mainly on holotype ♂.

Head: Black, silver-gold pruinose, pale yellow-white setose. Antenna black, setae dark red-brown. Face entirely pruinose. Mystax sparse, entirely pale yellow-white, occupying lower one-third of face. Frons and vertex entirely pruinose except for ocellar tubercle. Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver to silver-gold pruinose, black and pale yellow-white setose. Mesonotum entirely pruinose except for a single small spot anterior of transverse suture and small part of postpronotal lobe, entirely black setose. Pleura entirely pruinose except for tiny spots on an- and katepisternum. Scutellum entirely pruinose, with 2 black *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown to black, silver pruinose, white setose; *troc* and *fem* dark red-brown (*fem* slightly paler distally), white setose; *tib* red-brown, extensively white setose (a few black setae ventrodistally); *tar* red-brown, extensively black setose. Wing 5.4 x 1.7 mm, veins brown, membrane transparent, unstained, extensively microtrichose (except for small parts proximally). Discal cell microtrichose, costal cell lacking microtrichia in proximal half.

Abdomen: Dark red-brown to black, silver-gold pruinose, white setose. Terminalia (Figs 40–42 paratype): *epand* in lateral view longer than external lobe of *goncx* and shorter than *hypd*, gradually tapering to fairly acutely-pointed tips and with small supapical hump ventrally; lobes separated medially, but touching basally; *hypd* in lateral view fairly straight with upturned distal end, longer than *epand*; broadly-rounded basally in ventral view (hind margin indented medially), tapering to fairly acutely-pointed apex. External lobe of *goncx* shorter than *epand*, broad, terminating in short, upwardly directed acutely-pointed apex; well-sclerotised internal lobe dorsally clearly seen to be fused with external lobe, projecting beyond external lobe, with tapering apex. Gonostyli in ventral view well-developed, slightly curved, terminating in rounded swelling.

Holotype: ♂ NAMIBIA: 'Namibia 21.iii.1984 / 21 km SW Grootfontein. / Rd8/1 19 41'S:17 58'E / Londt & Stuckenberg / Mixed woodland on the / slopes of a hill'.

Paratypes: 10♂ 9♀ same data as holotype.

Distribution, phenology and biology (Tables 1, 2): Recorded only from the type locality in Namibia. Collected in March. Two prey records are available at the NMSA: 2♀ (Hymenoptera, Formicidae, alates).

Similar species: *R. etheira* sp. n.

Rhabdogaster karoo sp. n.

Figs 43–45

Etymology: Refers to the occurrence of this species in a semi-arid area of South Africa known as the Karoo.

Description: Based mainly on holotype ♂.

Head: Black, silver pruinose, pale yellow and white setose. Antenna black, setae white and pale yellow (few dark red-brown on pedicel). Face entirely strongly pruinose. Mystax entirely pale yellow-white, occupying approx. lower half of face. Frons extensively pruinose, vertex entirely apruinose (including ocellar tubercle). Occiput entirely pruinose, dorsally pale yellow, ventrally white setose. Proboscis and palpi dark red-brown, setae pale yellow-white.

Thorax: Dark red-brown to black, silver-gold pruinose, pale yellow-white setose. Mesonotum extensively apruinose except for lateral and posterior margin and areas posterior of postpronotal lobes. Pleura extensively silver-gold pruinose with apruinose spots on anepisternum, katepisternum and proepimeron. Scutellum extensively apruinose except for anterior margin, with approx. 10 small brown-yellow *sctl s*. Postmetacoxal bridge brown-yellow, entirely apruinose. Legs: *cx* red-brown, silver-gold pruinose, pale yellow setose; *troc* orange and red-brown; *fem* brown-yellow with dark red-brown anterior surfaces, white setose; *tib* brown-yellow, white setose (a few black setae distally, especially on *tib* 3); *tar* brown-yellow, predominantly black setose. Wing 3.5 x 1.3 mm, veins yellow-brown, membrane transparent, unstained, almost entirely microtrichose (except for some small proximal areas). Discal and costal cells entirely microtrichose.

Abdomen: Dark red-brown to black, gold-silver pruinose, dark red-brown and white setose. Tergites extensively apruinose except for narrow hind margins, setae dark red-brown on apruinose parts, white on pruinose areas. Sternites entirely pruinose, short white setose. Terminalia (Figs 43–45 paratype): *epand* in lateral view longer than external lobe of *goncx* and *hypd*, gradually tapering to narrowly-rounded tips; lobes very narrowly separated medially; *hypd* in lateral view curved, with upturned distal end, shorter than *epand*, of similar length as external lobe of *goncx*; in ventral view broadly-rounded proximally, tapering rapidly to long distal projection with splayed tip. External lobe of *goncx* shorter than *epand* lobe, similar in length to *hypd*, broad, parallel-sided terminating in broadly-rounded apex; internal lobe and details of *gonst* hidden from view.

Variation: A uniform species. ♀ with central apruinose facial spot.

Holotype: ♂ SOUTH AFRICA: *Eastern Cape*: 'Sth Africa: Cape Prov / 22 km SE Graaff-Reinet / on Pearston Rd 750m / 32°27'S:24°38'E Open / Karoo scrub/flowers / J&H Londt 7.xii.1989'.

Paratypes: 3♂ 4♀ same data as holotype.

Distribution, phenology and biology (Tables 1, 2): Recorded only from the South African type locality in a semi-arid area receiving limited summer rainfall. Collected in December (mid-summer in a summer rainfall area).

Similar species: *R. oldroydi* and *tanylabis* sp. n.

Rhabdogaster kosmos sp. n.

Figs 46–48

Etymology: From Greek *kosmos* (ornament, decoration). Refers to the attractive appearance of this small species.

Description: Based mainly on holotype ♂.

Head: Black, silver pruinose, white setose. Antenna black, setae white. Face entirely strongly pruinose. Mystax entirely white, occupying approx. lower one-third of face. Frons and vertex entirely pruinose (including ocellar tubercle, although areas bordering ocelli are bare). Occiput entirely pruinose. Proboscis and palpi dark red-brown to black, setae white.

Thorax: Black, silver pruinose, white setose. Mesonotum strongly pruinose except for pair of medial stripes (extending from anterior margin to three-quarters length of mesonotum), two large lateral spots and much of postpronotal and postalar lobes. Pleura extensively pruinose except for small spots on an- and katepisternum. Scutellum extensively apruinose except for ring encircling disc, with 3 moderately developed *sctl s* accompanied by approx. 8 minor setae. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* dark red-brown; *fem* dark red-brown with orange distal ends, white setose; *tib* orange, broadly dark red-brown distally, predominantly white setose (few black setae ventrodistally); *tar* dark red-brown, predominantly white setose (few black setae). Wing 3.8 x 1.5 mm, veins brown-yellow, membrane transparent, unstained, extensively lacking microtrichia (except distally). Discal cell at most sparsely microtrichose, costal cell entirely without microtrichia.

Abdomen: Dark red-brown to black, silver pruinose, dark red-brown and white setose. Tergites largely apruinose with broad anterolateral subtriangular pruinose areas, setae tiny dark red-brown on apruinose areas, short to moderately long on pruinose parts. Sternites entirely pruinose, short white setose. Terminalia (Figs 46–48 paratype): *epand* in lateral view slightly shorter than external lobe of *goncx*, tapering to narrowly-rounded tips; in dorsal view lobes narrowly separated proximomedially; *hypd* in lateral view fairly straight with upturned distal end, shorter than external lobe of *goncx*; in ventral view broadly-rounded proximally, tapering rapidly distally before diverging and terminating in broad distal lobe with shallowly bilobed apex. External lobe of *goncx* slightly longer than *epand*, slightly curved upwards distally before tapering quickly to rounded apex; internal lobe and details of *gonst* largely hidden from view; aedeagus in ventral view with broadly expanded apex.

Holotype: ♂ NAMIBIA: 'South West Africa 2114Bc / Damaraland, Okombahe area / 33 km. W. Uis Mine, 750m. / 6-II-1974, ME Irwin / dunes against rocky hill'.

Paratypes: NAMIBIA: 1♂ 'Namibia 25.iii.1984 / Rocky hillside slopes / at Khorixas Rest Camp / 20 21'S:14 55'E / Londt & Stuckenberg / Sparse Mopane scrub.'; 1♂ 1♀ 'Namibia 26.iii.1984 / 54 km S Khorixas. Road / 76. 20 43'S:14 49'E / Londt & Stuckenberg / Roadside grass and / flowers, sandy area.'; 1♀ same data as holotype; 1♂ 2♀ 'South West Africa 2115Bd / Omaruru Dist. 25 km. N.W. / Omaruru, 1200m. 5-II-1974 / ME Irwin, dry wash in *Acacia*-covered plain'; 1♀ 'South West Africa 2116Ca / Omaruru Dist. 20 km. S.E. / Omaruru, 1580m. 4-II-1974 / ME Irwin, sandy plain with *Acacia* trees'.

Distribution, phenology and biology (Tables 1, 2): Recorded only from Namibia, at five localities in the northern region receiving late summer rainfall. Collected during February and March.

Similar species: *R. zebra* sp. n.

Rhabdogaster lindneri sp. n.

Figs 49–51

Etymology: Named after the late Erwin Lindner who made a significant contribution towards understanding East African Asilidae.

Description: Based on holotype ♂.

Head: Black, silver pruinose, pale yellow-white setose. Antenna black, setae pale yellow-white. Face entirely pruinose (weakly so centrally). Mystax entirely pale yellow-white, occupying approx. lower half of face. Frons mostly apruinose (silver pruinose ventrally); vertex entirely apruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae pale yellow-white.

Thorax: Orange-brown and dark red-brown, silver pruinose, white setose. Mesonotum dark red-brown with orange-brown lateral and posterior margins, largely apruinose except for lateral and posterior margins. Pleura mostly pruinose except for parts of anepisternum, katepisternum and metepisternum. Scutellum extensively apruinose except for anterior margin, with 10 fine pale yellow-white *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* orange-brown, silver pruinose, white setose; *troc* orange-brown; *fem* mostly dark red-brown with orange posterior surfaces, white setose (1 or 2 black setae ventrally); *tib* similar to *fem*, predominantly white setose (few black setae ventrodistally); *tar* dark red-brown, partly white (small setae) and black (big setae) setose. Wing 5.9 x 2.3 mm, veins light brown, membrane transparent, slightly yellow-brown stained, entirely microtrichose. Discal and costal cells entirely microtrichose.

Abdomen: Dark red-brown with orange lateral margins, gold and silver pruinose, black and white setose. Tergites extensively apruinose except for narrow lateral margins, setae small black on apruinose parts, white on pruinose parts. Sternites brown-orange, entirely pruinose, moderately long white setose. Terminalia (Figs 49–51): *epand* in lateral view long, extending well beyond level achieved by external lobe of *goncx* and *hypd*, tapering in slightly undulating fashion to rounded tips; in dorsal view lobes narrowly separated proximomedially; *hypd* in lateral view curved, about as long as external lobe of *goncx*, with fairly broad upturned distal end with well developed dorsodistal lobe; in ventral view broadly-rounded proximally, tapering rapidly distally before terminating in broadly-rounded distal lobe. External lobe of *goncx* slightly curved upwards distally before tapering quickly to rounded apex; internal lobe of *goncx* and details of *gonst* largely hidden from view.

Variation: Females somewhat variable and may have central apruinose facial spots, a more extensively pruinose frons, an almost entirely black thorax and abdomen, a fully pruinose metepisternum, more extensively pruinose tergites. Females generally larger (max. wing length 7.0 mm) than males.

Holotype: ♂ KENYA: ‘Kenya / 40 km NW / Nairobi [0117S:3650E] / 31.viii.83 / 31.viii.83 / A. Freidberg’.

Paratypes: IVORY COAST: 1♀ ‘Côte D’Ivoire: 10 km / NW Toumodi ca 500m / 20.iv.1989 JGH Londt / 06°35'N:05°06'W / Open grass area with / dense patches of bush’; KENYA: 1♀ ‘Kenya: Lorogi Pla- / teau, 6 mi. S. of / Kisima. [0007N:3724E] 6200ft. / 15-xii-1969 M.E. / Irwin & E.S. Ross’ (CASC); 1♀ ‘Kenya: Nairobi #58 / Karura State Forest / 01°15'S:36°53'E 1000m / Weiwei River 22.xi.1992 / J Londt & A Whittington / Eroded banks & thicket’; 1♂ ‘Dr van Someren / Nairobi / March 1928’, ‘Kenya Colony’ (BMNH); 1♀ ‘Kenya: Karen. [0120S:3642E] / Alt. 5800ft. / 21-xii-1969 / M.E. Irwin & / E.S. Ross’ (CASC); 1♀ ‘ Kenya: West Pokot #68 / 5 km East of Sigor / 01º28'N:35º30'E 1700m / 19.xi.1992 5 km NE city / J Londt & A Whittington / Indigenous forest/edges’; 1♀ ‘Kenya Rt.A109 / Athi River [0126S:3702E] / 30.iv.1991 / A. Freidberg / & Fini Kaplan’; 1♀ ‘Emali Range / Sultan Hamud [0204S:3728E] / 4900-5900 ft. 3-40’ (BMNH); UGANDA: 1♂ ‘Uganda / Entebbe [0003N:3227E] / 1954 / G.S. Corbet’ (BMNH).

Distribution, phenology and biology (Tables 1, 2): A widely distributed species recorded from Ivory Coast, Kenya and Uganda. Collected north and south of the equator in March, April, August, November and December.

Similar species: *R. major*, *oresbios* sp. n. and *xanthokelis* sp. n.

Rhabdogaster maculipennis Engel, 1929

Figs 4, 52–54

Rhabdogaster maculipennis Engel, 1929: 169, 170, figs 15 antenna, 16 hypopygium; Hull 1962: 213; Oldroyd 1974: 67 (in key), fig. 60 male terminalia; 1980: 367 (catalogue). Type locality: Zimbabwe (Sawmills).

Redescription: Based on lectotype ♂.

Head: Red-brown, silver-gold pruinose, pale yellow-white setose. Antenna: Scape and pedicel brown-yellow, postpedicel and style red-brown, setae pale yellow-white. Face entirely pruinose. Mystax composed of approx. 10 pale yellow-white setae arranged along epistomal margin. Frons and vertex entirely pruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi yellow, setae white.

Thorax: Red-brown and orange, silver-gold pruinose, white setose. Mesonotum entirely pruinose except for two short anterior stripes positioned between dorsocentral and acrostichal setae. Pleura entirely pruinose. Scutellum entirely pruinose, with 4 moderately developed pale yellow-brown *sctl s* accompanied by approx. 6 more minor setae. Postmetacoxal bridge entirely silver-gold pruinose. Legs: *cx* orange, gold-silver pruinose (*cx* 3 with apruinose area laterally), white setose; *troc*, *fem*, *tib* and *tar* brown-yellow, pale yellow-white (mainly proximal parts) and dark red-brown to black setose (mainly distal parts). Wing 4.6 x 1.3 mm, veins light-brown, membrane transparent, with orange staining as illustrated (Fig. 4), cells extensively microtrichose (except for parts of some proximally situated cells). Discal and costal cells microtrichose except for small proximal part of costal cell.

Abdomen: Brown, entirely silver-gold pruinose, white setose. Terminalia (Figs 52–54): *epand* in lateral view extending well beyond level achieved by external lobe of *goncx* and *hypd*, tapering to rounded tips; in dorsal view lobes separated but touching proximomedially; *hypd* in lateral view slightly curved, longer than external lobe of *goncx*, but shorter than *epand*; in ventral view somewhat truncate proximally, tapering rapidly distally before terminating in a long mediodistal process with broadly-rounded apex. In lateral view external lobe of *goncx* short, tapering rapidly from midlength to moderately acute tip. Internal lobe of *goncx* and *gonst* projecting beyond level achieved by external lobe.

Type material: ZIMBABWE: ♂ lectotype, 1♀ paralectotype [both specimens side by side, double mounted with separate minuten pins into a card pinned with a normal pin which bears the labels], ‘Type’ [circular, white with red edge], ‘Sawmills [1935S:2802E] / S. Rhodesia / 24 5. 1924 / Rhod. Museum’, ‘350’ [red ink], ‘Pres. by / Imp. Bur. Ent. / Brit. Mus. / 1928 – 347’, ‘*Rhabdogaster / maculipennis* / n. sp. / Dr E. O. Engel det.’, ‘Syntypes / *Rhabdogaster / maculipennis* Engel / det. J.E. Chainey, 1983’ [has small circular label with blue border pasted to top right corner; the circular label carries the words ‘Syn- / types’ (BMNH).

Note: Engel (1929) stated that he studied 3♂ 2♀ and did not designate a holotype. His ‘types’ must therefore be considered syntypes, and so I designate the male seen by me as lectotype. Other specimens are considered paralectotypes. The BMNH informs me that they have, in addition to the pair of specimens studied by me, 1♀ and 1? (i.e. a specimen without abdomen – presumably a ♂). This leaves a single ♂ unaccounted for.

Paralectotype ♀ agrees well with lectotype, although it is somewhat greasy.

Distribution, phenology and biology (Tables 1, 2): Recorded only from the type locality in Zimbabwe. Collected in May.

Similar species: Distinctive but some similarity to *R. flavida*.

Rhabdogaster major Oldroyd, 1970

Figs 55–58

Rhabdogaster major Oldroyd, 1970: 280, 281, fig. 52 male genitalia; 1980: 367 (catalogue). Type locality: DR Congo (Garamba National Park, Mt Ndogo).

Redescription: Based on holotype ♂ (see note below).

Head: Dark red-brown to black, silver pruinose, white setose. Antenna: Scape and pedicel dark red-brown to black (terminal segments missing), setae white. Face entirely pruinose. Mystax entirely white, occupying approx. lower half of face. Frons extensively pruinose, vertex entirely apruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver pruinose, white setose. Mesonotum largely shiny apruinose, except for lateral parts and large silver pruinose area posterior of postpronotal lobes. Pleura pruinose except for large apruinose spot on anepisternum. Scutellum apruinose except for anterior margin, with approx. 8 weak white *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc*, *fem*, *tib* and *tar* dark red-brown (*tib* and *tar* slightly lighter than *fem*), setae predominantly white but black ones present on *tib* (ventrodistally) and *tar* (mostly ventrally). Wing 4.6 x 1.7 mm, veins brown, membrane transparent, unstained, microtrichia cover distal parts while proximal cells are mostly bare. Discal cell weakly microtrichose, costal cell entirely without microtrichia.

Abdomen: Dark red-brown, silver pruinose, white setose. Tergites 1–5 extensively apruinose except for anterolateral margins. Sternites entirely pruinose. Terminalia (Figs 55–58) appearing asymmetrical due to being damaged: *epand* in lateral view longer than external lobe of *goncx*, but shorter than *hypd*, tapering to acute tips; in dorsal view lobes separated but touching proximomedially; *hypd* in lateral view curved with upturned distal end, longer than external lobe of *goncx* and *epand*; in ventral view somewhat truncate proximally, tapering gradually distally and terminating in a long process with broadly-rounded apex. In lateral view external lobe of *goncx* tapering gradually to moderately acute tip. Internal lobe of *goncx* projecting beyond level achieved by external lobe.

Variation: ♀ similar but face apruinose centrally.

Holotype: ♂ DR CONGO: 'Paratypus' [orange with black border], 'Congo Belge, P/N.G. [Garamba National Park – 0410N:2930E] / Miss. H. De Saeger / Mt. Ndogo, 15-III-1950 / Réc. H. De Saeger. 308', '*Rhabdogaster* ♀ / *major* Oldroyd / det. H. Oldroyd 1966 / Paratype' [white] (MRAC).

Paratype: DR CONGO: 1♀ 'Holotypus' [orange with black border], 'Congo Belge, P/N.G. / Miss. H. De Saeger / Inimvua, 16-v-1952 / H. De Saeger. 3480', '*Rhabdogaster* ♂ / *major* Oldroyd / det. H. Oldroyd 1966 / Holotype' [white] (MRAC).

Note: The localities Mt Ndogo and Inimvua, both in the Garamba National Park, have not been traced in available gazetteers. Oldroyd (1970) lists a male holotype from Inimvua and a female paratype with the same data as the holotype. However, the female, from Inimvua, is labelled as holotype, but carries a label stating that the specimen is a male. The male, which has different label data, carries a label stating that the specimen is a female. I have decided not to swap the labels around but consider the male to be the holotype as intended by Oldroyd. The type locality is not Inimvua, but Mt Ndogo.

Other material studied: DR CONGO: 1♂ 1♀ 'B. Congo: 41 / mi. S. Idiofa [0502S:1936E] / viii-8-57', 'E.S. Ross & / R.E. Leech / collectors' (CASC).

Distribution, phenology and biology (Tables 1, 2): Recorded from three places in the Democratic Republic of Congo. Collected in March, May and August.

Similar species: *R. xanthokelis* sp. n., *lindneri* sp. n. and *oresbios* sp. n.

Rhabdogaster melas sp. n.

Figs 59–61

Etymology: From Greek *melas* (black, dark). Refers to the generally dark appearance of this species (one of only a few with a predominantly black mystax).

Description: Based on holotype ♂.

Head: Black, silver pruinose, black and white setose. Antenna black, setae black. Face with large centrally situated apruinose area. Mystax predominantly black (few white setae), occupying approx. lower half of face. Frons and vertex entirely apruinose, white and black setose. Occiput entirely pruinose, white setose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver pruinose, mainly white setose. Mesonotum extensively apruinose except for narrow lateral and posterior margins. Pleura largely pruinose except for big apruinose spot on anepisternum and small spots on katepisternum and anepimeron. Scutellum extensively apruinose except for hind margin, with 2 moderately developed *sctl s* accompanied by approx. 8 minor setae. Postmetacoxal bridge entirely gold-silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* dark red-brown and orange-brown; *fem* dark red-brown with orange-brown dorsal surfaces, white and black setose (a few black ventral macrosetae present); *tib* dark red-brown with orange-brown dorsoproximal parts, black and white setose; *tar* dark red-brown, setae black and white. Wing 4.7 x 1.8 mm, veins dark brown, membrane largely transparent, slightly orange stained, almost entirely microtrichose (except for small proximal parts). Discal and costal cells entirely microtrichose.

Abdomen: Black, silver-gold pruinose, white setose. Tergites largely apruinose except for narrow lateral margins, setae short medially, longer laterally. Sternites entirely pruinose, setae moderately long. Terminalia (Figs 59–61) not as well sclerotised as preceding segments: *epand* in lateral view slightly longer than external lobe of *goncx*, tapering to broadly-rounded tips; in dorsal view lobes narrowly joined proximomedially; *hypd* in lateral view curved, shorter than both external lobe of *goncx* and *epand*; in ventral view broadly-rounded proximally, tapering rapidly to long, narrow, parallel-sided process with truncate apex. In lateral view external lobe of *goncx* and *gonst* hardly visible.

Holotype: ♂ SOUTH AFRICA: *KwaZulu-Natal*: 'Fire lookout / Grassland on / steep slopes / 7500–7700ft', 'Cathedral Peak [3319CC] / Forestry Reserve / Natal Drakensberg / March 1959 / B.R. & P.J. Struckenberg'.

Paratypes: SOUTH AFRICA: *KwaZulu-Natal*: 2♀ same data as holotype; 1♀ 'Alpine meadows alti- / tude 8500–9700 ft.', 'S. Afr. Natal, Drakens- / berg. Cathedral Peak / area, 19–23.iii.1955 / coll. G. Rudebeck' (MZLU).

Distribution, phenology and biology (Tables 1, 2): Known from two collections in the Cathedral Peak area, South Africa, where specimens were captured in high altitude montane grassland in March (late summer).

Similar species: *R. nyx* sp. n.

Rhabdogaster nitida Hull, 1967

Figs 62–64

Rhabdogaster nitidus Hull, 1967: 237, 238; Oldroyd 1974: 69 (in key), figs 59 entire ♀, 64 male genitalia. Type locality: South Africa (20 miles N Matatiele).

Rhabdogaster nitida: Oldroyd 1980: 367 (catalogue).

Redescription: Based on holotype ♀ (in fairly poor condition).

Head: Dark red-brown to black, silver pruinose, white setose. Antenna dark red-brown to black, setae black. Face entirely pruinose. Mystax entirely white, occupying approx. lower half of face. Frons entirely pruinose, vertex (including ocellar tubercle) shiny apruinose. Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver pruinose, white setose. Mesonotum extensively apruinose except for lateral and anterolateral parts (posterior to postpronotal lobes). Pleura largely pruinose but with big bare areas covering much of an- and katepisternum. Scutellum with pruinose margins (central apruinose area may be rubbed smooth), only a single tiny white *sctl s* intact. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, gold-silver pruinose, white setose; *troc* dark red-brown and orange, *fem* dark red-brown with orange distal parts, pale yellow-white setose; *tib* orange proximally, dark red-brown distally, predominantly white setose (a few black setae ventrodistally); *tar* dark red-brown, partly white (mainly dorsally) and black (mainly ventrally) setose. Wing 6.7 x 2.2 mm, veins yellow-brown to brown, membrane transparent, unstained, extensively microtrichose except proximally. Discal cell entirely microtrichose, costal cell entirely devoid of microtrichia.

Abdomen: Dark red-brown to black (except for yellow-brown subgenital plate), gold-silver pruinose, white setose. Tergites extensively pruinose except for mid-dorsal parts that are thinly apruinose (may be the result of wear). Sternites entirely pruinose. Male terminalia (Figs 62–64, Royal Natal Nat. Park specimen): *epand* in lateral view shorter than external lobe of *goncx* and *hypd*, tapering fairly rapidly to acute tips; in dorsal view lobes broadly fused proximally; *hypd* in lateral view curved with upturned apex, slightly shorter than external lobe of *goncx*; in ventral view broadly-rounded proximally, tapering rapidly to long, narrow, process with clavate apex. In lateral view external lobe of *goncx* and *gonst* hardly visible.

Variation: A fairly consistent species. The mystax may have a few black setae (in both sexes). Legs may vary in the extent of orange coloration (e.g. *fem* 1 and *tib* 1 and 2 may be entirely orange).

Holotype: ♀ SOUTH AFRICA: *Eastern Cape*: 'S. Afr. Cape Prov. / Border 20 miles N / Matatiele [3040S:2728E] / 8.III.51. No. 214', 'Swedish South Africa / Expedition / 1950–1951 / Brinck – Rudebeck', 'Holotype [red]', 'Type / *Rhabdogaster* / *nitidus* / Hull [white, black border]', 'Zool. Mus. Lund Sweden / Asilidae / Type No. / 1793:1' [last 2 lines sideways] (MZLU).

Other material studied: SOUTH AFRICA: *KwaZulu-Natal*: 3♂ 6♀ 'South Africa: Natal / Royal Natal National / Park 7–11.iv.1990 / 28°41'30"S:28°57'30"E / 1450m J.G.H. Londt / nr Mahai Caravan Park'; 3♂ 6♀ 1? 'S Africa: Natal #12 / Royal Natal Nat. Park / 28°41'S:28°57'E 1440m / Date: 02–04.iv.1993 / Coll: J. Londt / Mahai Camp/grassland'; 4♂ 4♀ 'RSA: Natal #114 / Cathedral peak / 28-57'S:29-12'E 3075m / Date: 4.v.1995 / Coll: J.G.H. Londt / Grassland'; 2♂ 'South Africa: Natal / Cathedral Peak area / 28–31 May 1981 / R.M. Miller 2829CC / grassland'; 3♂ 1♀ 'South Africa: Natal / Cathedral Peak area / Forest Reserve 1900m / 2829Cc 4–11.iv.1977 / JGH Londt ex Malaise'; 1♀ 'South Africa: Natal / Cathedral Peak area / Ukhahlamba Res. Stn. / Above 1700m 2829cc / Coll: J.G.H. Londt / Date: 28–31.v.1983'; 2♂ 'South Africa: Natal / Cathedral Peak area / 2829Cc 7–12 April 1982 / JGH Londt ex Malaise'; 1♀ 'S Africa: Natal / Drakensberg Mountains / ° 'S: ° 'E [co-ordinates not written in] / Date: 1996 / Coll: P.E. Reavell'.

Other material recorded: Oldroyd (1974) gives 'S.W. AFRICA: Okahandja, ii.1929 (R. E. Turner)'. This identification can not be accepted as Okahandja [2159S:1655E] lies in a totally different climatic region far from other confirmed localities.

Distribution, phenology and biology (Tables 1, 2): Positively recorded only from South Africa. Known from a number of localities along the Drakensberg mountain range, and collected in late summer (March, April and May). Three prey records are available at the NMSA: 1♂ 2♀ (Hymenoptera, Formicidae, alates).

Similar species: *R. nuda, oribi* sp. n. and *pellos* sp. n.

Rhabdogaster nuda Loew, 1858

Figs 65–70

Rhabdogaster nudus Loew, 1858: 351 [1860: 167, 168]; Hull 1962: 212; Oldroyd 1974: 67 (in key), fig. 63 male genitalia; Londt 1993: 385, figs 1 (head), 2 (postmetacoxal area), 3 (wing), 4–6 (♂ genitalia). Type locality: South Africa (Stellenbosch).

Rhabdogaster nuda: Oldroyd 1980: 367 (catalogue).

Redescription: Londt (1993) provided a redescription of the unique holotype. As that specimen is no longer available (see below), I here provide a description of a Stellenbosch ♂ believed to be conspecific. As this ♂ shows slight differences in genital form, the illustrations of the holotype provided by Londt (1993) are redrawn here as Figs 65–67 for comparative purposes.

Head: Dark red-brown to black, silver pruinose, white and black setose. Antenna dark red-brown to black, setae black. Face entirely pruinose. Mystax entirely white, occupying approx. lower half of face. Frons pruinose, vertex entirely apruinose (including ocellar tubercle), black setose. Occiput entirely pruinose, white setose. Proboscis and palpi red-brown, setae white.

Thorax: Dark red-brown, silver pruinose, white and black setose. Mesonotum largely pruinose with apruinose stripes and spots centrally. Postpronotal and postalar lobes mostly apruinose. Pleura extensively pruinose with small apruinose spots on an- and katepisternum. Scutellum pruinose except for posterior margin, with approx. 12 long, thin, black *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* red-brown; *fem* red-brown (1 and 2 with broad yellow distal ends), white setose; *tib* and *tar* brown-yellow, partly white (mainly dorsally) and black (mainly ventrally) setose. Wing 4.1 x 1.3 mm, veins brown, membrane transparent, unstained. Microtrichia present distally, weak to absent proximally. Discal cell lacking microtrichia proximally, costal cell entirely lacking microtrichia.

Abdomen: Dark red-brown, silver pruinose, white and black setose. Tergites pruinose except for posteromedial parts, setae white, but black on apruinose areas. Sternites entirely pruinose, white setose. Terminalia (Figs 68–70): *epand* in lateral view similar in length to external lobes of *goncx* and clearly longer than *hypd*, tapering to narrowly-rounded tips; in dorsal view lobes broadly joined proximomedially; *hypd* in lateral view curved, shorter than both external lobe of *goncx* and *epand*; in ventral view broadly-rounded proximally, tapering rapidly to moderately long, narrow, parallel-sided process with rounded apex. In lateral view external lobe of *goncx* and *gonst* extending beyond level reached by outer lobe of *goncx*.

Variation: A fairly uniform species, but variation difficult to ascertain as most of the material is in poor condition. The identities of females without sympatric males may need future verification.

Holotype: ♂ SOUTH AFRICA: *Western Cape*: ‘Cap. B. Sp.’ (ZMHB).

Note: Londt (1993) studied this specimen, providing a redescription and illustrations of head, postmetacoxal bridge, wing and male terminalia (3 views). Although the specimen was consigned to the postal services, it was not received by the ZMHB and must now be considered lost.

Other material studied: SOUTH AFRICA: *Western Cape*: 1♂ ‘South Africa / Stellenbosch [3356S:1851E] / 15.10.1938 / Ac. US.’; 2♀ ‘South Africa / Stellenbosch / 3–5–1927 / Ac. US.’; 1♀ ‘South Africa / Stellenbosch / 20 April 1927 / Ac. US.’.2♀ ‘South Africa: Cape. / Franschhoek 3319CC / Jan Joubertsgat Riv. / J. Londt + B. Stuckenberg / Open veg. + riverbanks’; 2♀ ‘South Africa / Rawsonville [3341S:1919E] / 10.4.1944 / Ac. US. / JUR’; 1♀ ‘South Africa / Rawsonville / 11.4.1944 / Ac. US.’; 1?, ‘South Africa / Robertson [3348S:1953E] / 17.4.1927 / Ac. US.’.

Other material recorded: Oldroyd (1974) records the following as localities for *nuda* – ‘Mossel Bay; Willowmore; Vanrhynsdorp; Camps Bay. NATAL: Will Grange. RHODESIA: Salisbury, Birchenough Br. (O’Neil)’. With possible exception of the Camps Bay material, which I have not encountered, it is highly unlikely that any of the specimens concerned actually belong to this species. I am unaware of material from either Mossel Bay or Vanrhynsdorp. The only specimens I have seen from Willowmore belong to a distinctive species here described as *R. yeti*. Will Grange is an abbreviation for Willow Grange, a farming area near Estcourt in KwaZulu-Natal, hundreds of kilometres from the area previously called the ‘Cape of Good Hope’ (Cap. B. Sp.). The two Zimbabwean records are even further away from the Western Cape and must also be rejected as valid localities for *R. nuda*.

Distribution, phenology and biology (Tables 1, 2): Positively recorded only from South Africa. It is interesting to note that *nuda* and *quasinuda* appear to be sympatric at both Stellenbosch and Rawsonville. Collected in April, May and October.

Similar species: *R. nitida*, *oribi* sp. n. and *pellos* sp. n.

Rhabdogaster nyx sp. n.

Figs 71–73

Etymology: From Greek *nyx* (night). Refers to the dark coloration of this species.

Description: Based on holotype ♂ unless otherwise stated.

Head: Black, silver pruinose, black setose. Antenna (♀ paratype) black, setae black. Face entirely pruinose (weak in dorsal part of mystax). Mystax entirely black, occupying approx. lower two-thirds of face. Frons and vertex entirely apruinose (or at least appearing so). Occiput entirely pruinose, upper occipital setae black, lower occipitals white. Proboscis dark red-brown, setae white; palpi dark red-brown, *plp* 1 white setose (a few black), *plp* 2 black setose.

Thorax: Dark red-brown to black, gold-silver pruinose, black and white setose. Mesonotum extensively apruinose, pruinescence confined to lateral and posterior margins and 2 narrow medial strips from anterior margin to transverse suture (following usual course of dorsocentral setae), all setae black. Pleura extensively pruinose except for large spots on an- and katepisternum, setae pale yellow-white. Scutellum almost entirely apruinose except for narrow anterior margin, with approx. 4 black strong *sctl s* accompanied by approx. 6 more minor setae. Postmetacoxal bridge entirely silver-gold pruinose. Legs: *cx* dark red-brown, silver-gold pruinose, white setose (some black setae on *cx* 2); *troc* dark red-brown; *fem* dark red-brown proximally (leg 3 more extensive than others), orange distally, yellow-white setose (leg 3 has row of black macrosetae anteroventrally); *tib* entirely orange, black and yellow-white setose; *tar* dark red-brown, mainly black setose. Wing 6.3 x 2.4 mm, veins orange to brown, membrane somewhat opaque, slightly orange stained, almost entirely microtrichose. Discal and costal cells entirely microtrichose (weak at proximal end of costal cell).

Abdomen: Black, silver pruinose, black and white setose. Tergites extensively apruinose except for small anterolateral parts, setae short black except laterally where there are a few longer white setae. Sternites entirely pruinose, setae long, mixed black and white. Terminalia (Figs 71–73): *epand* in lateral view fairly robust, projecting beyond limits attained by both external lobes of *goncx* and *hypd*, tapering to narrowly-rounded tips; in dorsal view lobes narrowly joined proximomedially; *hypd* in lateral view thickset, curved, longer than external lobe of *goncx* and shorter than *epand*, with upturned setose distal end of characteristic shape; in ventral view broadly-rounded proximally, tapering rapidly to moderately long, slightly clavate medial process with rounded apex. In lateral view external lobe of *goncx* suboval, internal lobe well-developed with somewhat truncate distal end; *gonst* in ventral view almost straight.

Variation: Little variation exists between the three specimens.

Holotype: ♂ SOUTH AFRICA: *Western Cape*: 'Gt. Wint-hoek [= Groot Winterhoek mountain – 3308S:1906E] / Tulbagh / 3.800 ft.' ~ 'April 1916 / R.M.L.' (1♂).

Paratypes: SOUTH AFRICA: *Western Cape*: 1♀ 1? same data as holotype (1? SAMC, 1♀ BMNH); 1♀ 'Gt. Wint-hoek / Tulbagh / 4.500 ft.' ~ 'Nov. 1916 / Lightfoot' (SAMC).

Note: The condition of these specimens is generally poor. The holotype has the antennae broken off beyond pedicels and cracked abdominal sternites, the female paratype lacks its forelegs, the abdomen is cracked and the wings tattered, the third specimen lacks its abdomen beyond segment 2, the antennae are broken off beyond pedicels and the left wing is missing.

Distribution, phenology and biology (Tables 1, 2): Recorded only from South Africa. Known only from the type locality, a regionally high mountain (summit 2078 m). Tulbagh, a small town some 20 km south of the Groot Winterhoek mountain, lies at about 300 m a.s.l. and so the collecting sites at 3800 and 4500 ft (approx. 1160 and 1370 m) are on the upper slopes of the mountain. That this species has not been collected elsewhere, and not in recent times, probably means that it is confined to the infrequently visited higher altitudes of Western Cape mountains, and may even be found only on this particular peak. Collected in April and November in a winter rainfall area.

Similar species: *R. melas* sp. n.

Rhabdogaster oldroydi (Lindner, 1973), **comb. n.**

Figs 74–76, 129

Heteropogon oldroydi Lindner, 1973: 78; Oldroyd 1974: 44 (footnote mention only); 1980: 362 (catalogue). Type locality: Namibia (Daan Viljoen Nature Reserve).
Afroholopogon oldroydi: Londt 1994*a*: 64.

Redescription: Based on holotype ♀.

Head: Black, silver pruinose, white setose. Antenna black, setae white. Face extensively pruinose, except for central shiny apruinose area. Mystax entirely white, occupying approx. lower half of face. Frons partly pruinose, vertex entirely apruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi dark red-brown to black, setae white.

Thorax: Dark red-brown to black, silver pruinose, white setose. Mesonotum extensively apruinose including central areas, postpronotal and postalar lobes. Pleura entensively pruinose with apruinose spots on an- and katepisternum. Scutellum extensively pruinose except for hind margin and small central area, with approx. 8 moderately developed white *sctl s* accompanied by approx. 10 tiny setae. Postmetacoxal bridge entirely gold-silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* orange and red-brown; *fem* dark red-brown with orange distal and proximal ends, white setose; *tib* orange, predominantly white setose (a few black setae ventrodistally); *tar* brown-orange, mostly black setose. Wing 7.9 x 2.9 mm, veins orange anteriorly, brown posteriorly, membrane transparent, weakly yellow stained, extensively dark microtrichose. Discal cell microtrichose, costal cell with a few microtrichia distally.

Abdomen: Black, silver pruinose, white setose. Tergites apruinose except for lateral margins. Sternites entirely pruinose.

Variation: Other females agree well with the holotype. The species does however display significant sexual dimorphism. Apart from being smaller, the Ai Ais ♂ differs from the holotype in the following important ways.

Head: Antennal setae black. Face entirely pruinose and without central shiny apruinose area. Mystax occupying approx. lower one-third of face.

Thorax: Pleura more extensively apruinose. Scutellum entirely apruinose except for anterior margin, *sctl s* dark red-brown. Postmetacoxal bridge entirely apruinose. Legs: *fem* entirely orange, many black setae are present (including some stout ones ventrally); *tib* have many black setae; *tar* dark red-brown. Wing 4.6 x 1.9 mm, veins mostly brown, membrane transparent, more strongly yellow stained. Costal cell with more microtrichia distally.

Abdomen: Sternites largely apruinose. Terminalia (Figs 74–76, Fish River Canyon specimen): *epand* in lateral view much longer than external lobes of *goncx* and similar in length to *hypd*, tapering to rounded tips; in dorsal view lobes narrowly separated proximomedially; *hypd* in lateral view more or less straight, longer than external lobe of *goncx*; in ventral view broadly-rounded proximally, tapering rapidly to moderately long, process with enlarged mid-section and rounded apex. In lateral view external and internal lobes of *goncx* clearly fused hardly visible.

Holotype: ♀ NAMIBIA: 'Daan Viljoen [Nature Reserve – 2232S:1658E] SWA. / 19. – 21.1.1970 / Lindner leg.', '*Heteropogon* / Sp. 1 / det. H. Oldroyd 1970', '*Heteropogon* / *oldroydi* / Lindner det. Lind.', 'Typus / Lindner / 1973' [white, red ink, black border – date sideways] (SMNS).

Other material studied: NAMIBIA: 1♀ 'Kaoko Otavi [1818S:1342E] / S.W.A.' ~ 'Mus. Expd. / Mar. 1926' (SAMC); 1♂ 'Kawares [1903S:1421E] / S.W.A.' ~ 'Mus. Expd. / Mar. 1926' (SAMC); 2♀ 'Kaross [1930S:1420E] / S.W.A.' ~ 'Mus. Exped. / Feb. 1925' (SAMC); 1♀ 'South West Africa 2217Ca / Windhoek Dist. Auasberge / 21 km. S. Windhoek, 1800m. / 31-I-1974, ME Irwin / sandy wash in mountains'; 1♀ 'South West Africa 2415Bb / Maltahöhe Dist. 25 km. S / Salitaire on Dieprivier / Farm, 15-II-1974, 1000m. / ME Irwin, gravel wash'; 1♂ 'Gorrasis 99 / Lüderitz / SE2515Bd / 12–15 Feb. 1973', 'H11584' (NMNW); 1♂ 'Namibia, Fish River Canyon / Park, 13 km. E. Ai Ais, 330m. / malaise in dry wash in / canyon draw; 19-xi-1996; M.E. / Irwin, EI Schlinger, DK Yeates / 27°55'22"S. 17°31'04"E'.

Distribution, phenology and biology (Tables 1, 2, Fig. 129): Recorded only from Namibia. Specimens are from seven localities, and collected in November, January, February and March, indicating that the species flies during summer in that summer rainfall region.

Similar species: *R. karoo* sp. n. and *tanylabis* sp. n.

Rhabdogaster oresbios sp. n.

Figs 5, 77–79, 129

Etymology: From Greek *oresbios* (living on mountains). Refers to the habitat in which the species is usually found.

Description: Based mainly on holotype ♂.

Head: Black, silver-gold pruinose, pale yellow setose. Antenna dark red-brown to black, setae pale yellow. Face pruinose except for central shiny black apruinose area. Mystax entirely pale yellow, occupying approx. lower two-thirds of face. Frons and vertex entirely apruinose (including ocellar tubercle). Occiput entirely gold-silver pruinose. Proboscis and palpi dark red-brown, setae pale yellow.

Thorax: Black, silver-gold pruinose, long pale yellow setose. Mesonotum largely apruinose (including postpronotal and postalar lobes), pruinescence limited to narrow lateral and posterior margins. Pleura extensively pruinose except for small apruinose areas on an- and katepisternum. Scutellum almost entirely apruinose (has narrow anterior pruinose margin), with approx. 20 fine, long *sctl s*. Postmetacoxal bridge entirely gold-silver pruinose. Legs: *cx* dark red-brown, gold-silver pruinose, pale yellow setose; *troc* dark red-brown, long pale-yellow setose; *fem* dark red-brown except for arrange parts as follows – posterior surface of leg 1, proximodorsal parts of legs 2 and 3, long, pale yellow setose; *tib* dark red-brown with just proximal end orange, long pale yellow setose (a black setal comb ventrodistally); *tar* dark red-brown, partly pale yellow (mainly dorsally) and black (mainly ventrally) setose. Wing (Fig. 5) 5.0 x 2.0 mm, veins yellow anteriorly, light-brown posteriorly, membrane transparent, unstained, entirely orange and brown microtrichose. Discal and costal cells entirely microtrichose.

Abdomen: Black, silver-gold pruinose, pale yellow setose. Tergites almost entirely apruinose with narrow pruinose margins, setae tiny except along lateral margins where they are long, pale yellow. Sternites entirely pruinose, long pale yellow setose. Terminalia (Figs 77–79 paratype): *epand* in lateral view longer than external lobes of *goncx* and *hypd*, tapering to middle before gradually diverging to fairly broadly-rounded tips (the tips have thin fairly transparent bordering 'flages'); in dorsal view lobes very narrowly joined proximomedially; *hypd* in lateral view curved, with strongly upcurved distal region, longer than external lobe of *goncx*, but shorter than *epand*; in ventral view broadly-rounded proximally, tapering rapidly to moderately long, narrow, parallel-sided process with rounded apex. In lateral view external lobe of *goncx* and *gonst* hardly visible.

Variation: A remarkably consistent species with little individual variation.

Holotype: ♂ SOUTH AFRICA: *KwaZulu-Natal*: 'South Africa: Natal / Cathedral Peak area / 2829Cc 16–18.xii.1977 / JGH Londt ex Malaise'.

Paratypes: SOUTH AFRICA: *KwaZulu-Natal*: 1♂ 'South Africa KZN / Royal Natal N. Park 1425m / 28°41.362'S 28°56.327'E / Malaise tr., stream y-wood [Yellowwood or *Podacarpus*] / Date: 10–13.xii.2004 / Coll: M. Mostovski'; 2♀ 'South Africa: Natal / Royal Natal National / Park 6–10.xii.1984 / JGH Londt Riverine / bush Montane slopes'; 3♂ 6♀ same data as holotype; 1♀ 'South Africa: Natal / Cathedral Peak area / 26–27.xii.1977. 2829CC / R.M. Miller, indigenous / for., Malaise trap.'; 1♂ 'South Africa: Natal / Cathedral Peak: / Indumeni gorge 2829CC / 14–18.xi.1982 / D.A. Barraclough'; 1♂ 12♀ 'South Africa. Natal / Ukhahlamba Res. Stn. / 2829CC 13.i.1984 / Themeda veld / P. Reavell'; 3♂ 'S. Africa. Natal / 2,5 km S. Ukuhlamba / Res. Station. Grassy margin / path to weir. 2829CC / 21 Dec. 1979. B. Lamoral'; 1♂ 4♀ 'RSA: KZ-Natal #86 / Culfargie / 28°48'S:29°35'E 1316 / Date: 2–3.xii.1994 / Coll: D. A. Barraclough'; 5♂ 5♀ 'R.S.A.: KZ-Natal #115 / Monks Cowl Nature Res. / 29°03'S:29°24'E 1440m / Date: 10.xii.1995 / Coll: J.G.H. Londt / Stream & Forest edges'; 7♂ 3♀ 'South Africa: Natal / Injasuti Nature Res. / 2929AB 5–11.xii.1983 / Coll: J.G.H. Londt / at M/V light trap.'; 3♂ 'South Africa: Natal / Giant's Castle Game / Res. – Injasuti area / SE2929AB JGH Londt / 5–11.xii.1983'; 1♂ 1♀ 'South Africa: Natal / Giants Castle G. Res / 2929AD 16.ii.1983 / D. Barraclough / Montane grassland'; 1♂ 1♀ 'Karkloof range / nr. Mt Alida [2911S:3020E] / Natal, S. Africa / B. & P. Stuckenberg / 24.xii.1961'; 1♀ 'South Africa: Natal / Karkloof Geekies farm [2915S:3020E] / 12.xii.1978 / J.G.H. Londt'; 1♀ 'RSA: Natal #113 / Chakas Rock / 29–

32'S:31–15'E 160m / Date: 9–16.vi.1995 / Coll: J.G.H. Londt / Chakas Rock Chalets area'; *Eastern Cape*: 1♂ 'S Africa: E Cape #2 / 37 km NE Maclear / 30°53'S:28°18'E 1670m / Date: 3.ii.1992 Natal / Museum Expedition / Grassland and stream.'; 1♂ 'Sth Africa Cape Prov / Ca. 16 km NE. Hogsback / on Cathcart Road. / 3226BD. 19.i.1984 / D. & C. Barraclough. / Rocky hillside.'.

Distribution, phenology and biology (Tables 1, 2, Fig. 129): Recorded only from South Africa. Collected mainly in higher altitude areas, and found mainly during summer (November – February), but there is an isolated record in June associated with a coastal locality.

Similar species: *R. lindneri* sp. n., *major* and *xanthokelis* sp. n.

Rhabdogaster oribi sp. n.

Figs 80–82

Etymology: Named after the type locality.

Description: Based on unique holotype ♂.

Head: Dark red-brown to black, gold-silver pruinose, white and black setose. Antenna dark red-brown to black, setae black. Face extensively pruinose except for two small weakly apruinose spots centrally. Mystax entirely pale yellow-white, occupying approx. lower half of face. Frons entirely pruinose, vertex apruinose (including ocellar tubercle), fine black setose. Occiput entirely silver pruinose. Proboscis and palpi dark red-brown, setae fine white.

Thorax: Dark red-brown to black, silver and gold pruinose, black and white setose. Mesonotum extensively pruinose except for pair of anteromedial stripes, most of post-pronotal and postalar lobes, and 3 lateral spots (1 anterior of transverse suture, 2 postsutural – one being small), notopleurals (2) and supraalars (1) pale yellow, other setae black. Pleura pruinose except for small spot on anepisternum. Scutellum pruinose except for hind margin, with 2 major black *sctl s* accompanied by 2 black minor setae. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc* orange with red-brown distal ends; *fem* dark red-brown with orange proximal and distal ends, white setose; *tib* brown-yellow proximally, dark red-brown distally, predominantly white setose (some black setae ventrodistally); *tar* brown-yellow, mostly black setose. Wing 5.1 x 1.7 mm, veins orange-brown, membrane transparent, unstained, extensively microtrichose. Discal cell entirely microtrichose, costal cell mostly without microtrichia (some pesent in distal part).

Abdomen: Dark red-brown, fine gold-silver pruinose (tergites with apruinose hind margins only), white setose. Terminalia (Figs 80–82): *epand* in lateral view longer than external lobes of *goncx* and *hypd*, tapering to fairly acute tips; in dorsal view lobes broadly fused proximomedially; *hypd* in lateral view curved, with upturned distal end, shorter than external lobe of *goncx* and *epand*; in ventral view broadly-rounded proximally, tapering rapidly distally to pointed apex. In lateral view external and internal lobes of *goncx* clearly fused, *gonst* in ventral view sinuous with pointed tip.

Holotype: ♂ SOUTH AFRICA: *KwaZulu-Natal*: 'Oribi Gorge Reserve [3042S:3015E], / Umzimkulwana Valley, / Natal, South Africa. / B. & P. Stuckenberg / 21–28 November 1960'.

Distribution, phenology and biology (Tables 1, 2): Recorded only from the South African type locality. Collected in November.

Similar species: *R. nitida*, *nuda* and *pellos* sp. n.

Rhabdogaster pedion sp. n.

Figs 1–3, 83–85, 130

Etymology: From Greek *pedion* (field). Refers to this species' montane grassland habitat.

Description: Based on holotype ♂ unless otherwise stated.

Head: Black, orange-gold pruinose, pale yellow-white setose. Antenna black, setae black. Face with pair of closely associated black apruinose subtriangular spots centrally. Mystax entirely pale yellow-white, occupying approx. lower half of face. Frons entirely orange-gold pruinose, vertex (including ocellar tubercle) entirely shiny black apruinose. Occiput entirely gold-silver pruinose. Proboscis and palpi dark red-brown, setae pale yellow-white.

Thorax: Dark red-brown to black, silver and gold pruinose, pale yellow-white setose. Mesonotum extensively pruinose except for a pair of stripes anteriorly, a pair of small spots laterally and parts of postpronotal and postalar lobes. Pleura almost entirely pruinose (small apruinose spots on an- and katepisternum). Scutellum almost entirely pruinose except for hind margin, with 2 long pale yellow-white *sctl s*. Postmetacoxal bridge (Fig. 2) entirely gold-silver pruinose. Legs: *cx* dark red-brown, gold-silver pruinose, pale yellow-white setose; *troc* dark red-brown; *fem* dark red-brown with orange distal ends, pale yellow-white setose; *tib* orange with dark red-brown distal ends, predominantly pale yellow-white setose (few black setae ventrodistally); *tar* dark red-brown, partly pale yellow-white (mainly dorsally) and black (mainly ventrally) setose. Wing (Fig. 3) 6.3 x 2.0 mm, veins brown, membrane transparent, unstained, almost entirely dark microtrichose (except for small parts proximally). Discal cell entirely microtrichose, costal cell with microtrichia along entire length but absent from much of posterior margin.

Abdomen: Black, silver-gold pruinose, pale yellow-white setose. Tergites almost entirely pruinose except for narrow distal margins of proximal segments, setae short. Sternites entirely pruinose, setae moderately long. Terminalia (Figs 83–85): *epand* in lateral view slightly shorter than external lobe of *goncx* and *hypd*, tapering to fairly acute tips; in dorsal view lobes broadly fused proximomedially; *hypd* in lateral view curved, with upcurved distal end, projecting to about same length as external lobe of *goncx*; in ventral view broadly-rounded proximally, tapering rapidly distally to elongate process with rounded apex. In lateral view external lobe of *goncx* tapering distally to narrowly-rounded tip; *gonst* in ventral view slightly curved with narrowly-rounded tip.

Variation: A reasonably uniform species. Extent of orange leg coloration, and thoracic and abdominal pruinescence slightly variable.

Holotype: ♂ SOUTH AFRICA: *KwaZulu-Natal*: 'RSA: KZ-Natal #13 / Injasuti Nature Res. / 29°12'S:29°22'E 1800m / date: 27.iii.1994 / Coll: J.G.H. Londt'.

Paratypes: SOUTH AFRICA: *KwaZulu-Natal*: 1♂ 'S Africa: Natal #50 / Royal Natal Nat. Park / 28 41'S:28 57'E 1900m / Date: 7–11.iv.1990 / nr. Grotto. Indigenous / river-forest margins'; 6♂ 9♀ 'S Africa: Natal #12 / Royal Natal Nat. Park / 28°41'S:28°57'E 1440m / Date: 02–04.iv.1993 / Coll: J. Londt / Mahai Camp/ grassland'; 1♂ 'South Africa: Natal. / Royal Natal Nat. Park / 2828DB. J. Londt. / 28–29.iv.1984. Forest / margins & grasslands.'; 6♂ 5♀ 1? 'South Africa: Natal / Royal Natal National / Park 6–10.xii.1984 / JGH Londt Riverine / bush Montane slopes'; 6♂ 4♀ 'S. Africa: Natal #2 / Royal Natal National / Park. 25.iv.1984 1900m / at Witsieshoek / R. Miller & P. Stabbins' (1♂ 1♀ BMNH); 2♂ 'South Africa: Natal / Cathedral Peak area / xii.26–27.1977. 2829CC / R.M. Miller. indigenous / for., Malaise trap'; 10♂ 7♀ 'South Africa: Natal / Cathedral Peak area / 2829Cc 16–18.xii.1977 / JGH Londt ex Malaise'; 1♂ 'South Africa: Natal / Cathedral Peak area / 2829CC J.G.H. Londt / Date: 5–6 Feb. 1983 / ex Malaise'; 1♂ 3♀ 'S. Africa. Natal / 2.5 km S.

Ukuhlamba / Res. Station. Grassy margin / path to weir. 2829CC / 21 Dec. 1979. B. Lamoral'; 3♂ 1♀ 1? 'South Africa. Natal / Ukhahlamba Res. Stn. / 2829CC 13.i.1984 / Themeda veld / P. Reavell'; 1♂ 1♀ 1? 'Fire lookout / Grassland on / steep slopes / 7500–7700 Ft.', 'Cathedral Peak / Forestry Reserve / Natal Drakensberg / March 1959 / B.R. & P.J. Stuckenberg'; 1♂ 'Little Berg Summits / Themeda Grassland / 5500–6000 Ft.', 'Cathedral Peak / Forestry Reserve / Natal Drakensberg / March 1959 / B.R. & P.J. Stuckenberg'; 1♂ 'Indumeni River / Fynbos consocies / 6300 ft.', 'Cathedral Peak / Forestry Reserve / Natal Drakensberg / March 1959 / B.R. & P.J. Stuckenberg'; 5♂ 8♀ 'South Africa: KZNatal / uKhahlamba-Drakensberg / Park Monk's Cowl N. R. / 29°03'01"S 29°23'51"E / 22.i.2006 J. G. H. Londt / 1518m Montane grassland; 5♂ 1♀ 'RSA: KZ-Natal #13 / Injasuti Nature Res. / 29°12'S:29°22'E 1800m / date: 27.iii.1994 / Coll: J.G.H. Londt'; 1♀ 'RSA: KZ-Natal #14 / Injasuti Nature Res. / 29°12'S:29°22'E 1500m / date: 29.iii.1994 / Coll: J.G.H. Londt'; 1♂ 'RSA: KZ-Natal #16 / Injasuti Nature Res. / 29°12'S:29°22'E 1800m / date: 27.iii.1994 / Coll: J.G.H. Londt'; 2♂ 4♀ 'South Africa: Natal / Giants Castle G. Res / 2929AD 16.ii.1988 / D. Barraclough / Montane grassland'; 1♂ 1♀ 'Sth Africa: KZ-Natal / Cobham Forst Reserve / 29°41'50"S 29°24'44"E / 1530m 24.ii.2000 / JGH Londt Grassland'.

Other specimens studied: LESOTHO: 1♂ 'Bushmans Pass / Maloti Mountains / 2125–2250m. / 8–14 Jan. 1963', 'Maseru [2927BD] District / Basutoland / B. & P. Stuckenberg'. SOUTH AFRICA: *Gauteng*: 1♀ 'Transvaal R.S.A / Brits Dist. / Hartbeespoort Dam / (25 27 DD) / 21.iii.1972 / J.A. van Reenen'; 1♀ 'S.Afr: Gauteng / Pretoria-oos [Pretoria-East] / 25°32'S 28°11' [E omitted] / 20.iii.1998 / leg. F. Swanepoel', 'Univ. of Pretoria / Dept. Zoology & / Entomology / 2nd Year Collection'; *KwaZulu-Natal*: 5♂ 5♀ 'South Africa: Natal / Normandien Forest Res / 27°57'45"S:29°41'03"E / Montane Podocarpus / Forest margins 1950m / JGH Londt 19.iv.1988'; 1♀ 'So. Africa: Natal, 15km / SE Rorke's Drift / 28°30'S, 30°30'E / 30 May 1992 RM Miller'; 1♂ 3♀ 'South Africa KwaZulu-Natal / Umfolozi Nature Reserve / Mbhzane Field Station / 28°13.37'S / 31°47.72'E / Mixed Thornveld / leg. T. Dikow 7.v.2000'; 1♀ 'South Africa: Natal / Ntambanana area / 3145E 2835S 30.iii.85 / P E Reavell 275m / Windy ridge in / grassveld';1♀ 'South Africa: Natal / Empangeni area / 3155E 2845S 18.vi.83 / P E Reavell 110m / Vosloo's farm / Digitaria grassveld / in Tamboutie veld'; 3♂ 9♀ 'South Africa: Natal / Harold Johnson Nature / Res c 29°12'S:31°25'E / Coast Lowlands Forest / J.G.H. Londt 20m / 29.iv.1988 For. Edge'; *Eastern Cape*: 1♂ 1♀ 'S Africa: E. Cape #9 / 10 km ENE of Rhodes / 30°45'S:28°01'E 2080m / Date: 5.ii.1992 Natal / Museum Expedition / causeway near Malpas'; 1♂ 'S Africa: E Cape #2 / 37 km NE Maclear / 30°53'S:28°18'E 1670m / Date: 3.ii.1992 Natal / Museum Expedition / Grassland and stream.'; 1♂ 'S Africa: Cape #8 / Zuurberg Nat. Park / 33°21'S:25°44'E 600m / Date: 21.xi.1990 / Londt & Whittington / Montane macchia area'. SWAZILAND: 3♂ 3♀ 'Swaziland #48 / Mbuluzi Nature Reserve / 26°08'S:32°00'E 200m / Date: 25.iv.1991 / J Londt & L Schoeman / Mixed woodland area'; 10♂ 7♀ 'Swaziland #45 / 13 km N. of Ngogolo / 26°19'S:31°38'E 300m / Date: 22–24.iv.1991 / J Londt & L Schoeman / Panata Ranch/Bushveld'.

Distribution, phenology and biology (Tables 1, 2, Fig. 130): Recorded from South Africa, Lesotho and Swaziland. Most of the recorded localities are in the Drakensberg mountain range. Collections have been made from November through to June (i.e. summer, through autumn, and early winter – in a summer-rainfall region). Five prey records are available at the NMSA: 2♂ (Hymenoptera, Formicidae, alates), 1♀ (Hymenoptera, ? Eucharitidae), 1♀ (Diptera, Empididae), 1♀ (Isoptera, Termitidae, alate).

Similar species: *R. eremia* sp. n.

Rhabdogaster pellos sp. n.

Figs 86–88, 129

Etymology: From Greek *pellos* (dusky). Refers to the generally dark appearance of this species.

Description: Based on holotype ♂.

Head: Black, silver and gold pruinose, white and black setose. Antenna dark red-brown to black, setae black. Face fine gold pruinose except for two weak apruinose spots. Mystax entirely white, occupying approx. lower half of face. Frons and vertex pruinose (except for ocellar tubercle), fine black setose. Occiput entirely silver-gold pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver and gold pruinose, white and black setose. Mesonotum dark red-brown except for brown-orange postpronotal lobes, almost entirely pruinose except for parts of postpronotal and postalar lobes and a small spot anterior of postalar lobe. Pleura extensively pruinose except for spot on anepisternum. Scutellum pruinose except for posterior margin, with 2 major black *sctl s* accompanied by 2 black minor setae. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* orange-brown to dark red-brown, silver pruinose, white setose; *troc* orange and red-brown; *fem* orange with dark red-brown anterior surfaces (weak on forelegs), white setose (1 or 2 black setae distoventrally); *tib* orange, dark red-brown ventrodistally, predominantly white setose (a few black setae ventrodistally); *tar* orange-brown, mostly black setose. Wing 5.6 x 1.7 mm, veins yellow-brown, membrane transparent, unstained, microtrichia present mainly in distal part. Discal cell entirely microtrichose, costal cell without microtrichia except at distal end.

Abdomen: Dark red-brown to black, silver-gold pruinose, white setose. Tergites pruinose except for narrow posterior margins, setae tiny black medially, white laterally. Sternites entirely pruinose, white setose. Terminalia (Figs 86–88): *epand* in lateral view longer than external lobe of *goncx* and of similar length as *hypd*, tapering to rounded tips; in dorsal view lobes fused for more than half length; *hypd* in lateral view curved, with gently upcurved distal end, projecting to about same length as *epand*, and with dorsal subapical process; in ventral view broadly-rounded proximally, tapering gradually in undulating fashion to elongate terminal process with rounded apex. In lateral view external and internal lobes of *goncx* clearly fused basally, external lobe tapering distally to narrowly-rounded tip; internal lobe well-developed with truncate tip; *gonst* in ventral view sinuous with narrowly-rounded tip.

Variation: Minimal, despite the fairly extensive distribution. Specimens from Sutherland have silver pruinose faces.

Holotype: ♂ SOUTH AFRICA: *Eastern Cape*: ‘Cape Province / Grahamstown [3318S 2632E] / March 1971 / J. G. H. Londt’.

Paratypes: SOUTH AFRICA: *Northern Cape*: 1♀ ‘S Africa: Cape #35 / 23 km N of Middlepos / 31°44'S:20°14'E 1170m / Date: 29.xi.1990 / Whittington & Londt / At Kookfontein River’; 6♂ 7♀ ‘S Africa: Cape #25 / 19 km S of Sutherland / 32°33'S:20°34'E 1100m / Date: 25.xi.1990 / Whittington & Londt / Verlatekloof roadside’; *Eastern Cape*: 1♂ ‘Sth Africa Cape Prov / Mountain Zebra Nat. P. / 24 km W. of Cradock. / 3225AB 21.i.1984 / D. & C. Barraclough / Rocky hillside.’; 1♀ ‘Willowmore [3317S:2329E] / Capland / 3 1917 / Dr. Brauns’; 1♀ ‘Willowmore / v.1922 / Dr. Brauns’; 3♂ 1♀ same data as holotype; 1♀ ‘South Africa / Humansdorp [3402S:2446E] / 23.i.1984 / J.G. Theron’.

Distribution, phenology and biology (Tables 1, 2, Fig. 129): Recorded only from South Africa. Known from six fairly widely separated localities in the southern parts of the country. Collected in November, January, March and May. The species may be sympatric with *yeti*. One prey record is available at the NMSA: 1♀ (Hymenoptera, ? Aphelinidae).

Similar species: *R. nitida*, *nuda* and *oribi* sp. n.

Rhabdogaster poa sp. n.

Figs 89–91, 129

Etymology: From Greek *poa* (grass). Refers to the habitat occupied by this species.

Description: Based on holotype ♂.

Head: Black, silver pruinose, white setose. Antenna: Black, setae white. Face entirely pruinose. Mystax entirely white, occupying approx. lower half of face. Frons partly pruinose ventrally, vertex entirely apruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver pruinose, white setose. Mesonotum extensively apruinose except for lateral and posterior margins and pair of stripes following insertions of dorsocentral setae (broadest immediately posterior of postpronotal lobes). Pleura pruinose except for small spot on anepisternum. Scutellum apruinose except for narrow anterior margin, with 8 moderately developed *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* black, silver pruinose, white setose; *troc* and *fem* dark red-brown with narrow orange-brown proximal ends, white setose; *tib* dark red-brown with orange-brown dorsal surfaces, predominantly white setose (a few black setae ventrodistally on legs 2 and 3); *tar* dark red-brown, black setose. Wing 4.2 x 1.5 mm, veins yellow anteriorly, orange-brown posteriorly, membrane transparent, unstained, largely lacking microtrichia in proximal region. Discal cell lacking microtrichia in proximal part, costal cell entirely without microtrichia.

Abdomen: Black, silver pruinose, black and white setose. Tergites largely apruinose (proximal tergites almost completely so becoming progressively more pruinose towards posterior end), black setose on apruinose parts, white on pruinose parts. Sternites entirely pruinose, white setose. Terminalia (Figs 89–91): *epand* in lateral view similar in length to external lobe of *goncx* and shorter than *hypd*, tapering to acute tips; in dorsal view lobes narrowly fused proximomedially; *hypd* in lateral view long, curved, with upturned distal end, prjecting beyond levels achieved by *epand* and outer lobe of *goncx*; in ventral view somewhat truncate proximally, tapering rapidly to long parallel-sided terminal process with slightly clavate apex. In lateral view external lobe of *goncx* slightly upward-curved with broadly-rounded tip. Internal lobe and *gonst* hardly visible in lateral view.

Holotype: ♂ SOUTH AFRICA: *Limpopo*: ‘South Africa 2229DC / Transvaal 10 km NW of / Waterpoort 26.i.1978 / JGH. Londt open grass’.

Paratypes: BOTSWANA: 1♂ ‘Botswana SE2226BD / Farmers Brigade 5 km / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 3. i.1986’. 1♂ ‘Botswana Serowe / Farmer’s Brigade SE2226BD / Mercury light trap xii.1989 / V.I. Forchhammer’ (NHRS). 1♀ ‘Botsw: Kgatleng Dist / Pilane [2427S:2608E] 7 km SW Mochudi / On grass and herbs / 21.12.1981 Ulf Norling’ (MZLU); SOUTH AFRICA: *Limpopo*: 3♂ 2♀ ‘Sth Africa: Transvaal / 6 km N of Vivo 2229CC / 23–24.ii.1980 Londt / & Schoeman Buschverld [*i.e.* bushveld] / veget. & old lands’; 11♂ 10♀ same data as holotype (1♂ 1♀ BMNH); 1♀ ‘Zoutpan, Zpbg. [Zoutpansberge 2258S 2950E] / 15–30 Nov.1932 / G. van Son.’; 1♂ 2♀ ‘nr. Stockpoort / Transvaal / 23°25'S 27°22'E / 11.I.1978 / Holm, Jacobs, Kirsten, Scholtz’; 1♂ ‘South Africa 2329BD / Transvaal 2-4 km S of / Bandalierkop 27.i.78 / JGH. Londt Bushveld’; *Mpumalanga*: 1♂ ‘mounted / from alcohol’, ‘S. Africa: Transvaal / 30 km SE Hoedspruit [2421S:3058E] / Malaise trap / 14.xi.1978 / Brothers & J-Guillarmod’; 1♀ ‘S. Africa: Transvaal / 30 km SE Hoedspruit / Malaise trap / 13.xi.1978 / Brothers & J-Guillarmod’; 7♂ 14♀ ‘South Africa. Transvaal / Kruger Park 5-1-1974 2431Bb / 20 km NNE of Tshokwane / near road junction S35-S37 / B&P Stuckenberg open savanna’; 1♂ 4♀ ‘South Africa. Transvaal / Kruger Park 9-1-1974 / Bangu borehole. Grass, mud / 10 km SE Balule 2431Bb / B&P Stuckenberg’; 1♂ ‘Nwanedzi [2429S:3157E] / K.N.P. Survey / 29 30.iv.1969 / Potgieter & Strydom’; 1♂ 1♀ ‘Sth Africa: Transvaal / Kruger National Park / Vicinity of Skukuza / 9–12.iv.1985 J. Londt / SE2431DC Bushveld’; 5♂ 4♀ ‘Skukuza [2459S:3136E] / Kruger N.P. / leg. Zumpt, II.56’ (BMNH); *North West*: 1♂ ‘South Africa 2527CD / Transv. Magaliesberge / Buffelspoortdam area / 2.ii.1978 JGH. Londt / Bushveld Long grass’.

Other material studied: In the absence of males, the following specimens are provisionally listed under this species: 3♀ ‘Rooiberg [2446S:2744E] / Transvaal / xii.1958’ (BMNH).

Distribution, phenology and biology (Tables 1, 2, Fig. 129): Recorded only from Botswana and South Africa. Most of the records are for Mpumalanga Province. Collected from November to February and April in a region with summer rainfall.

Similar species: *R. cornuata* sp. n., *theroni* sp. n. and *yeti* sp. n.

Rhabdogaster pulverulentus (Loew, 1858)

Figs 92–94, 130

Spanurus pulverulentus Loew, 1858: 350 [1860: 164–165]; Hull 1962: 147; Oldroyd 1980: 369 (catalogue). Type locality: South Africa (Stellenbosch).

Rhabdogaster pulverulentus: Londt 1993: 389–390.

Description: Based on holotype ♀ (left antenna broken off beyond pedicel, right midleg missing, abdomen broken off at base and stuck to a card pinned below specimen) unless otherwise stated.

Head: Orange and dark red-brown, silver and gold pruinose, white and black setose. Antenna: Scape and pedicel orange-bown, postpedicel and style dark red-brown to black, setae black. Face yellow-brown, extensively pruinose except for two weakly pruinose spots in dorsal half. Mystax extensively white except for a few black setae dorsally, occupying most of face. Frons and vertex dark red-brown, extensively fine gold pruinose (except ocellar tubercle), black setose. Occiput dark red-brown except for small orange parts dorsolaterally, entirely pruinose. Proboscis red-brown, setae white, palpi with *plp* 1 orange with white setae, *plp* 2 orange with dark red-brown distal part, mostly black setose.

Thorax: Dark red-brown to black and orange, silver and gold pruinose, white and black setose. Mesonotum (somewhat worn as specimen is close to head of pin – details of pruinescence taken from Stellenbosch ♂) red-brown to black except for orange postpronotal and postalar lobes, pruinose except for pair anteromedial stripes (extend to transverse suture), 3 lateral spots (2 postsuture) and most of postpronotal and postalar lobes. Pleura gold and silver pruinose except for apruinose spots on an- and katepisternum. Scutellum dark red-brown and brown-orange, entirely silver pruinose, with 2 long black *sctl s* accompanied by approx. 4 black minor setae. Postmetacoxal bridge entirely gold pruinose. Legs: *cx* orange-brown and dark red-brown, silver and gold pruinose, mainly white (black on midcoxae) setose; *troc* orange and dark red-brown; *fem* orange, mid- and hind-legs with dark red-brown ventral surfaces, white setose except for some black macrosetae on ventral sides of legs 2 and 3; *tib* similar to *fem*, predominantly white setose (some black setae ventrodistally on legs 2 and 3); *tar* orange, mostly black setose (less so on leg 1). Wing 5.4 x 2.1 mm, veins yellow to brown, membrane transparent, slightly yellow-brown stained, entirely microtrichose (giving overall orange-brown appearance). Discal and costal cells entirely microtrichose.

Abdomen: Dark red-brown to black, gold and silver pruinose, mainly white setose. Tergites largely apruinose distomedially (T2–6), setae minute black on apruinose parts, white on pruinose parts. Sternites entirely strongly orange-gold and silver pruinose, moderately long pale yellow setose. Terminalia largely brown-orange. Male terminalia (Figs 92–94, Stellenbosch specimen): *epand* in lateral view shorter than external lobe of *goncx* but of similar length to *hypd*, tapering to rounded tips; in dorsal view lobes appear closely associated (but not fused) proximomedially; *hypd* in lateral view short, fairly straight, slightly upcurved distally, projecting to about same level attained by *epand*; in ventral view broadly truncate proximally, tapering rapidly to short parallel-sided terminal process with rounded apex. In lateral view external lobe of *goncx* fairly broad, tapering distally to fairly broadly-rounded tip. Internal lobe extending a little beyond level attained by external lobe. *Gonst* in ventral view slightly curved with long narrow terminal part.

Holotype: ♀ merely labelled '9', '98', '253' (NHRS).

Note: The specimen only carries a few numbered labels (see Londt 1993). Loew gives collection data as 'Caffraria (Wahlb.)'. Wahlberg's material from 'Caffraria' is usually assumed to originate from one of the many places visited during his extensive trip from Port Natal (now Durban) into the interior of the eastern parts of present day South Africa. Wahlberg did, however, spend a few months (February – May) in 1839, collecting in the vicinity of Cape Town (Brinck 1955). Although Stellenbosch is not specifically mentioned in Brinck's (1955) account of Wahlberg's activities, it is possible that he visited that area. I here designate Stellenbosch as type locality.

Other material studied: SOUTH AFRICA: *Western Cape*: 1♀ 'South Africa / Vredenburg [3254S:1959E] / 28-4-1927 / Ac. US.'; 1? 'South Africa / Somerset O. [Oos = East – 3243S:2535E] / Des. [Desember = December] 1944'; 2♀ 1?, 'Cape Province / Ceres [3322S:1919E] / April 1925', 'S. Africa / R.E. Turner. / Brit. Mus. / 1925-210' (BMNH); 1♀ 'South Africa / Worcester [3339S:1926E] / 13.5.1942'; 1♀ 'Franschhoek [3355S:1907E] / 20-4-46 / T. Malherbe'; 1♀ 'South Africa / Stellenbosch [3356S:1851E] / 2.4.1942 / Ac. US. / A. C. Myburgh'; 1♀ 'South Africa / Stellenbosch / 2 May. 1927 / Ac. US.'; 2♀ 'South Africa / Stellenbosch / 12 May 1927 / Ac. US.'; 1♀ 'South Africa / Stellenbosch / 20 April. 1936 / Ac. US.'; 1♀ 'South Africa / Stellenbosch / 3-5-1927 / Ac. US.'; 1♀ 'South Africa / Stellenbosch / 20 April. 1927 / Ac. US.'; 1♀ 'South Africa / Stellenbosch / 29-9-1938 / Ac. US.'; 1♂ 1♀ 'South Africa / G DG du Toit / April 1956 / Stellenbosch'; 1♂ 'South Africa / St-bosch [Stellenbosch] / 15-9-1940'; 1♂ 'South Africa / St-bosch / 27.2.1944'; 1♀ 'Suid-Africa / S.bosch / 10.4.1943 / E. C. Anderson'; 1♀ 'South Africa / St bosch / 6.4.1957 / W.I. Wallierla [poorly written]'; 1♀ 'Strand [3407S:1850E] / 20/4/40 / A. Myburgh'; 1♀ 'So. Africa: SW. Cape, 7 km / S. Swellendam 3420Ab / Bontebok National Pk. / March 1979 L. Braack / Malaise trap, nr. River'; *Eastern Cape*: 1♀ 'Cape Province / Vanstadens / Pass [3354S:2512E], 100m / iv-20-58', 'E.S. Ross & / R.E. Leech / collectors' (CASC).

Most of the material is old and not well preserved.

Distribution, phenology and biology (Tables 1, 2, Fig. 130): Recorded only from South Africa. Known from a few localities in the Western Cape province of South Africa. Specimens have been collected mainly between February–May, but there are records for September and December.

Similar species: *R. bicolor* sp. n.

Rhabdogaster quasinuda sp. n.

Figs 95–97

Etymology: From Latin *quasi* (like) + *nuda*. Refers to the superficial similarity of this species to *R. nuda*.

Description: Based on holotype ♂.

Head: Black, silver pruinose, predominantly white setose. Antenna dark red-brown to black, setae black. Face entirely pruinose. Mystax entirely white, largely confined to lower epistomal margin. Frons and vertex (including ocellar tubercle) entirely pruinose. Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver pruinose, white setose. Mesonotum extensively pruinose except for tiny parts of postpronotal and postalar lobes, and a pair of short anteromedial stripes. Pleura pruinose except for small spot on anepisternum. Scutellum entirely pruinose, with 2 major *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc*, *fem*, *tib* and *tar* brown-yellow; *fem* and *tib* predominantly white setose (some black setae distally); *tar* mainly black setose. Wing 4.6 x 1.5 mm, veins pale brown, membrane transparent, unstained, almost entirely microtrichose. Discal and costal cells entirely microtrichose.

Abdomen: Dark red-brown to black, silver pruinose, white setose. Tergites weakly apruinose mediodistally. Sternites entirely pruinose. Terminalia (Figs 95–97): *epand* in lateral view similar in length to external lobe of *goncx* and longer than *hypd*, tapering to rounded tip; in dorsal view lobes broadly fused proximomedially; *hypd* in lateral view short, slightly curved, with slightly upcurved distal end; in ventral view somewhat truncate proximally, tapering rapidly to moderately long parallel-sided terminal process with rounded apex. In lateral view external lobe of *goncx* broad, tapering distally to fairly acute tip, *gonst* in ventral view curved.

Variation: Female similar to male. The extent of variation is difficult to assess as there are so few specimens.

Holotype: ♂ SOUTH AFRICA: *Western Cape*: 'South Africa / Rawsonville [3341S:1919E] / 10.4.1944 / Ac. US. / JUR'.

Paratypes: SOUTH AFRICA: *Western Cape*: 1♂ 'South Africa / Stellenbosch [3243S:2535E] / 2 April 1927 / Ac. US.'; 2♀ 'South Africa / Rawsonville [3341S:1919E] / 10.4.1944 / Ac. US. / JUR'.

Distribution, phenology and biology (Tables 1, 2): Recorded from two localities in South Africa where it is apparently sympatric with *nuda*. Collected only in April.

Similar species: *R. eremia* sp. n., *pedion* sp. n. and *rustica*.

Rhabdogaster rustica Oldroyd, 1974

Figs 98–100, 131

Rhabdogaster rustica Oldroyd, 1974: 67 (in key), fig. 62 male genitalia; 1980: 367 (catalogue). Type locality: South Africa.

Redescription: Based primarily on holotype ♂.

Head: Black, gold pruinose, yellow setose. Antenna dark red-brown to black, setae yellow. Face entirely pruinose. Mystax entirely yellow, occupying approx. lower two-thirds of face. Frons extensively pruinose, vertex entirely apruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae yellow.

Thorax: Dark red-brown to black, gold pruinose, long yellow setose. Mesonotum extensively pruinose (including much of postpronotal lobe and entire postalar lobe) except for broad anteromedial area and large shiny apruinose lateral areas. Pleura entirely pruinose. Scutellum entirely pruinose (weakly on hind margin), with 4 long, yellow *sctl s*. Postmetacoxal bridge entirely gold pruinose. Legs: *cx* dark red-brown, gold pruinose, long yellow setose; *troc* dark red-brown; *fem* dark red-brown with orange distal ends (extensive on legs 1 and 2, limited to apex on leg 3), yellow setose; *tib* orange proximally, dark red-brown distally, predominantly yellow setose (a few black setae ventrodistally); *tar* dark red-brown, mainly black setose. Wing 5.4 x 1.8 mm, veins orange to brown, membrane transparent, unstained, dark microtrichose. Discal and costal cells entirely microtrichose.

Abdomen: Entirely dark red-brown to black, gold pruinose, yellow setose (short on tergites, long on sternites). Terminalia (Figs 98–100, Garden Castle Nat. Res.): *epand* in lateral view projecting slightly beyond level attained by outer lobe of *goncx* and longer than *hypd*, tapering to acute tip; in dorsal view lobes broadly fused proximomedially; *hypd* in lateral view stout, slightly curved, with upturned distal end with dorsal subapical process; in ventral view somewhat truncate proximally, tapering rapidly to moderately long terminal process with fairly pointed apex. In lateral view external lobe of *goncx* lies close to *epand* and has pointed tip; *gonst* in ventral view fairly straight.

Variation: Little variation evident. Specimens from the KwaZulu-Natal Drakensberg mountain range tend to have more extensively orange legs (*fem* 1 and 2 often almost entirely orange); postalar lobes may be largely apruinose; antennal setae and mystax may carry a few dark red-brown setae. Hind margins of posterior tergites may be somewhat shiny apruinose (appearing worn).

Holotype: ♂ SOUTH AFRICA: *Gauteng*: ‘Holo- / type [circular, white with red border]’, ‘Johannesburg [2612S:2805E] / 6,000 ft. 3 1895 / J. P. Cregoe’, ‘Bought of / W.F.H. Rosenberg’, ‘C.J.Wainwright / Collection / B.M. 1948–488.’, ‘*Rhopalogaster* / *rusticus* Oldr. / det. H. Oldroyd 1972 / Holotype [white]’ (BMNH).

Paratype: 1♀ same data except labelled ‘Paratype’ (BMNH).

Notes: Types mislabelled *Rhopalogaster* instead of *Rhabdogaster*. The BMNH is also in possession of 2♂ paratypes from Johannesburg collected by Cregoe in iv.1905, and 2♂ 1♀ paratypes collected by Wroughton at Willow Grange on 16.iv.1914 (D. Notton pers. comm.); I have not studied this material.

Other material studied: MOZAMBIQUE: 1♂ ‘Moçambique / Namaacha [2558S:3202E] / 19/5/1980 / Coll. H.R. Feijen’. SOUTH AFRICA: *Limpopo*: 1♀ ‘30km W. L. [Louis] Trichardt / S.E.23°01' 29°44' / Apr. ’78 I.C. Sharp. / Dept. of Entomology / University of Pretoria’; *Mpumalanga*: 1♂ ‘Pelgrimsrus / SE24.30Da / iv.1979 / D.R. Swart / Dept: of Entomology / University of Pretoria’; 12♂ 9♀ ‘Sth Africa: Transvaal / Bourkes Potholes 60k. N. / Graskop SE2430DB / Date: 14.iv.1985 J. & B. Londt’; 1♀ ‘Sth Africa: Transvaal / Above Berlin Falls N. of / Graskop. Londt. SE2430DD / Date: 14.iv.1985 Riverine veg’; 1♂ 7♀ ‘Sth Africa: Transvaal / Mac Mac Pools area / NE Sabie SE2430DD / 13.iv.1985 J&B Londt / Rocky outcrops / Grass’; 1? ‘Transvaal / Barberton [2547S:3103E] / 15.iv.1974 / F. Zumpt’ (BMNH); *Gauteng*: 1♀ ‘Pretoria / SE2528Ca / 13.iii.1980 / J.E. Crafford / Dept: of Entomology / University of Pretoria’; 1♀ ‘RSA Gaut. Pta / 25°48'S – 28°15'E / 8.iv.1996 / D. Prinsloo’; 1♂ ‘Irene / 1. 4. 14 / H. Munro’ (NMNH); *Free State*: 1♂ ‘Sth Africa: Free State / Bloemfontein 27.iii.2006 / 29°06'S 26°10'E J. Londt / National Botanical Gardens / Mixed long indigenous / grass and stony pathways’; *KwaZulu-Natal*: 24♂ 23♀ ‘South Africa: Natal / Cathedral Peak area / Forest Reserve 1900m / 2829Cc 4–11.iv.1977 / JGH Londt ex Malaise’; 1♀ ‘South Africa: Natal / Cathedral Peak area / Forest Reserve 1900m / 2829Cc 4–11.iv.1977 / JGH Londt’; 3♂ 4♀ ‘South Africa: Natal / Cathedral Peak area / 28–31 May 1981 / R.M. Miller 2829CC / grassland’; 1♂ 1♀ ‘South Africa: Natal / Cathedral Peak area / 2829Cc 7–12 April 1982 / JGH Londt ex Malaise’; 1♂ ‘Indumeni River / Fynbos consocies / 6300 ft.’, ‘Cathedral Peak / Forestry Reserve / Natal Drakensberg / March 1959 / B.R. & P.J. Stuckenberg’; 2♂ ‘Little Berg Summits / Themeda Grassland / 5500–6000 Ft.’, ‘Cathedral Peak / Forestry Reserve / Natal Drakensberg / March 1959 / B.R. & P.J. Stuckenberg’; 6♂ 6♀ ‘South Africa: Natal / Die Kop 1131m ca 11 km / NE of Kranskop / 28°54'57"S:30°57'12"E / Grass & Forest Margin / Londt Whittington & / Chinn 17.iv.1990’; 1♀ ‘Nyala Res. [2840S:3145E] / Thick grass / 13.v.84’; 10♂ 4♀ ‘South Africa: Natal / Nkandhla Forest Res. / 28°44'35"S:31°09'00"E / 1000m J.G.H. Londt / Mistbelt Mixed Forest / margins 27.iv.1988’; 1♂ ‘South Africa: KZ-Natal / Nkandla FR / 28°44'32"S / 31°8'54"E / 10/4/2001’, ‘A. Armstrong & P. Ngwenya / NCS Record ID: 163086 / Grassland’; 5♂ 10♀ ‘South Africa: Natal / Nkandla Forest / 3108E 2843S 25.v.86 / PE Reavell 1200m / Ngongoni / grassveld’; 1♂ 1♀ ‘South Africa: Natal / Nkandla 2831CA / Herb layer 8/4/79 / P. Reavell / Forest’; 1♀ ‘S Africa; KZ-Natal #112 / Estcourt / 29°00'S:29°52'E / Date: 4.iv.1994 / Coll: Patrick Butler / Shooting range’; 1♀ ‘South Africa; Natal / Drakensberg, White Mountain Resort [2906S:2936E] / 20.iv.1981, T. Grout’; 1♂ 1♀ ‘RSA: KZ-Natal #13 / Injasuti Nature Res. / 29°12'S:29°22'E 1800m / date: 27.iii.1994 / Coll: J.G.H. Londt’; 1♂ ‘RSA: KZ-Natal #14 / Injasuti Nature Res. / 29°12'S:29°22'E 1500m / date: 29.iii.1994 / Coll: J.G.H. Londt’; 11♂ 6♀ ‘South Africa: Natal / Loteni Nature Res. / 2929BC J. & B. Londt / 28.iii.–3.iv.1986 / Campsite/Grassveld’; 1♀ ‘South Africa: Natal / Boston [2940S:2958E] / 26 March 1986 / J.G.H. Londt’; 1♂ 2♀ ‘R.S.A.: KZ-Natal #5 / Garden Castle Nat. Res. / 29°44'S:29°14'E 1740m / Date: 17.ii.1996 / Coll: J.G.H. Londt / Thukelana River. 3 Pools’; 1♀ ‘S Africa: KZ-Natal #24 / Castleburn, Drakensberg / 29°45'06.5"S:29°17'54.4"E / Date: 11–16.iv.1998 / Coll: Londt, J.G.H. / Alt: 1770m / Grassveld’; 1♀ ‘R.S.A.: KZ-Natal #7 / Garden Castle Nat. Res. / 29°45'S:29°11'E 2000m / Date: 18.ii.1996 / Coll: J.G.H. Londt / Mashai River banks grass’; 1♀ ‘South Africa; Natal / The Start Stud Farm / 20 km NE Howick 2930AD / J Londt 10.iv.1986 / Scrub/grass nr stream’; 1♂ ‘South Africa: Natal / Krantzkop The Kop / 2930BB 8.iv.1986 / J. Londt Grassveld & / forest margins'; 1♀ 'South Africa, Natal / Karkloof [2918S:3004E] 9.iv.1989 / Grassland sweep nr. / Clivia forest Stn.', 'A.E. Whittington'; 1♂ 2♀ 'So. Africa: Univ. Natal, / Ukulinga Res. Frm, 10 km / SE Pietermaritzburg [2937S:3023E] / May 1980 grassland / RM Miller sweep'; 8♂ 7♀ 'Sth Africa: KZ-Natal / Garden Castle Nat. Res. / 29°45'S:30°15'E 1800m / 28–29.iv.2001 JGH Londt / Hillside grass and rocks'; 2♂ 'South Africa: KZ-Natal / Ntumeni Nature Reserve / 29°53'S:31°23'E [incorrect corordinates] / 700m 10.iv.1999'; 6♂ 7♀ 'Sth Africa: KZ-Natal / Vernon Crookes Nat Res / 30°16'51"S:30°35'44"E / J.G.H. Londt 30.iv.2003 / 450m Mixed grassland'; *Eastern Cape*: 2♀ 'Hogsback [3235S:2657E] / Amatola Mts, C.P.' ~ 'R. F. Lawrence / Feb. 1933' (SAMC). SWAZILAND: 3♂ 2♀ 'Swaziland / Malolotia Wilderness Area / 26°07'S:31°06'E 1530m / Date: 7.iv.1997 / Coll: P.E. Reavell / Montane grassland'.

Distribution, phenology and biology (Tables 1, 2, Fig. 131): Recorded from Mozambique, South Africa and Swaziland. A fairly widely distributed species within summer rainfall areas. Collected during February and May. Three prey records are available at the NMSA: 1♂ (Araneida, undetermined), 1♂ (Hemiptera, Cicadellidae), 1♀ (Diptera, Phoridae).

Similar species: *R. eremia* sp. n., *pedion* sp. n. and *quasinuda* sp. n.

Rhabdogaster sinis sp. n.

Figs 101–103

Etymology: From Greek *sinis* (plunderer). Refers to the predatory behaviour of the species.

Description: Based mainly on holotype ♂.

Head: Black, silver to gold pruinose, white setose. Antenna black, setae pale yellow-white. Face entirely silver-gold pruinose. Mystax sparse, entirely white, occupying approx. lower half of face. Frons extensively silver pruinose, vertex entirely apruinose (including ocellar tubercle). Occiput entirely silver pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver to silver-gold pruinose, white setose. Mesonotum extensively pruinose except for pair of anteromedial stripes and 5 lateral spots (including small parts of postpronotal and postalar lobes). Pleura entirely silver pruinose. Scutellum entirely pruinose, with 2 moderately developed white *sctl s* accompanied by 3 or 4 smaller setae. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown to black, silver pruinose, white setose; *troc* and *fem* dark red-brown (*fem* with narrow orange-brown distal ends), white setose; *tib* red-brown with orange-brown proximodorsal parts, extensively white setose (a few black setae ventrodistally); *tar* red-brown, black and white setose. Wing 4.9 x 1.6 mm, veins brown, membrane transparent, unstained, largely lacking microtrichia, except distally. Discal cell with microtrichia in distal part only, costal cell entirely lacking microtrichia.

Abdomen: Dark red-brown to black, silver-gold pruinose, white setose. Tergites with narrow apruinose hind margins. Terminalia (Figs 101–103 paratype): *epand* in lateral view projecting beyond levels attained by outer lobe of *goncx* and *hypd*, tapering to narrowly-rounded tip; in dorsal view lobes broadly fused proximomedially; *hypd* in lateral view short, curved, with upturned distal end; in ventral view broadly-rounded proximally, tapering to moderately long terminal process with trifurcate apex. In lateral view external lobe of *goncx* and *gonst* project well beyond end of external lobes of *goncx*. *Gonst* in ventral view fairly straight.

Holotype: ♂ SOUTH AFRICA: *Northern Cape*: 'S Africa: N Cape #18 / 15 km W Olifantshoek / 27°55'S: 22° 38'E 1575m / Date: 15.iii.1991 / Whittington & Londt / Rocky, bushy valley'.

Paratypes: SOUTH AFRICA: *Gauteng*: 1♂ 'Zoutpan. Pta. [Pretoria 2545S:2810E] / 24.3.1941 / G. van Son'. 1♀ 'South Africa / Pretoria / Moreleta / Park 3.4.85 / J.G. Theron'; *Northern Cape*: 5♂ 6♀ same data as holotype; 1♀ 'Sth Africa Cape Prov / Hill nr Olifantshoek / 2722DC 24.iii.1982 / J. Londt & L. Schoeman / Rocky hillside grass / & Acacia trees.'.

Distribution, phenology and biology (Tables 1, 2): Recorded from four localities in South Africa. Collected in March and April. Found sympatrically with *tanylabis*.

Similar species: *R. cinerascens*.

Rhabdogaster tanylabis sp. n.

Figs 104–106

Etymology: From Greek *tany-* (long) + *labis* (forceps, tongs). Refers to the elongate genital components of the male.

Description: Based mainly on holotype ♂.

Head: Black, silver pruinose, white setose. Antenna black, setae white. Face entirely pruinose. Mystax entirely white, occupying approx. lower half of face. Frons extensively pruinose, vertex entirely apruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver pruinose, white setose. Mesonotum extensively apruinose, including much of central area, postpronotal and postalar lobes, pruinose lateral and posterior margins as well as a large area posterior of postpronotal lobes. Pleura extensively pruinose except for small spots on anepisternum, katepisternum and proepimeron. Scutellum extensively apruinose except for ring of silver pruinescence around disc, with approx. 8 moderately developed *sctl s*. Postmetacoxal bridge almost entirely apruinose (has pruinose lateral margins). Legs: *cx* orange to brown, silver pruinose, white setose; *troc* orange to red-brown; *fem* dark red-brown with distal and proximal ends orange, white setose; *tib* orange (*tib* 3 with dark red-brown distal end), predominantly white setose (a few black setae ventrodistally); *tar* orange-brown, white and black setose. Wing 5.4 x 2.1 mm, veins yellow anteriorly, light brown posteriorly, membrane transparent, slightly yellow stained, largely microtrichose (proximal cells extensively lacking microtrichia). Discal cell entirely microtrichose, costal cell with microtrichia only in distal half.

Abdomen: Dark red-brown to black, gold-silver pruinose, dark red-brown and white setose. Tergites extensively apruinose except for narrow lateral margins (more extensive on distal segments), setae small, dark red-brown on apruinose areas, white on pruinose areas. Sternites entirely pruinose, short white setose. Terminalia (Figs 104–106 paratype): *epand* in lateral view elongate, projecting beyond level attained by outer lobe of *goncx* but not as far as *hypd*, tapering to narrowly-rounded tip; in dorsal view lobes separate but touching proximomedially; *hypd* in lateral view long, curved, upturned distally; in ventral view broadly-rounded proximally, tapering to elongate terminal process with slightly clavate apex. In lateral view external lobe of *goncx* broad proximally, elongate distally, terminating in a finger-like process, *gonst* in ventral view short, slightly curved.

Variation: A fairly uniform species. ♀ postmetacoxal bridge weakly pruinose.

Holotype: ♂ SOUTH AFRICA: *Northern Cape*: 'S. Afr. Cape Prov. / Witsand Farm / E. 'Roaring Sands' / 28°32'S:22°31'E. / 4.ii.1979 / B. Lamoral'.

Paratypes: NAMIBIA: 1♂, 'Koreangab Dam / SE2217Ca / Windhoek / 12 Feb. 1971', 'H1782' (NMNW); SOUTH AFRICA: *Northern Cape*: 1♀ 'Sth Africa Cape Prov / Hill nr Olifantshoek /

2722DC 24.iii.1982 / J. Londt & L. Schoeman / Rocky hillside grass / & Acacia trees.'; 2♀ same data as holotype; 1♀ 'South Africa: N Cape / Witsand Nature Reserve / 28°33.673'S 022°29.656'E / 1200m J Londt & T Dikow / 30.i.–2.ii.2004 *Acacia* / savanna. Red sandy ridge'; 3♂ 1♀ 'South Africa: N Cape / Witsand Nature Reserve / 28°34.694'S 022°27.752'E / 1160m J Londt & T Dikow / 31.i.–1.ii.2004 Brulsand / dune area. *Acacia* savanna'.

Distribution, phenology and biology (Tables 1, 2): Recorded from Namibia and South Africa. Known from five localities, three within the Witsand Nature Reserve. Collected in January, February and March, in an area that receives late summer rainfall. Found sympatrically with *sinis*.

Similar species: *R. karoo* sp. n. and *oldroydi*.

Rhabdogaster theroni sp. n.

Figs 107–109

Etymology: Named after the late Dr J.G. Theron who made an enormous contribution to the taxonomy of South African homopterans. In addition, his collecting activities were important, most of the type specimens of this species being found by him.

Description: Based mainly on holotype ♂.

Head: Black, silver pruinose, white setose. Antenna black, setae white except for a few black dorsally. Face extensively pruinose except for a pair of oblique spots in dorsal region. Mystax entirely white, occupying most of face. Frons and vertex extensively fine pruinose except for an apruinose stripe between eyes (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Black, silver pruinose, white setose. Mesonotum with large apruinose areas, including postpronotal and postalar lobes, broad medial stripe, two large spots on either side of transverse suture. Pleura extensively pruinose except for large spots on an- and katepisternum. Scutellum largely apruinose except for narrow anterior margin, with approx. 12 *sctl s*. Postmetacoxal bridge entirely silver-gold pruinose. Legs: *cx* black, silver pruinose, white setose; other parts dark red-brown to black except for distal ends of *fem* and proximal ends of *tib* which are orange-brown. Setae mostly white (some black on ventral parts of *tar*). Wing 4.0 x 1.5 mm, veins pale brown-yellow, membrane transparent, unstained, proximally largely devoid of microtrichia. Discal cell proximally without microtrichia, costal cell entirely without microtrichia.

Abdomen: Black, silver pruinose, white setose. Tergites apruinose middorsally and along hind margins. Sternites entirely pruinose. Terminalia (Figs 107–109 paratype) darkly pigmented: *epand* in lateral view short, not projecting beyond levels attained by outer lobe of *goncx* and *hypd*, tapering to fairly acute tip; in dorsal view lobes narrowly fused proximomedially; *hypd* in lateral view short, curved, upturned distally; in ventral view somewhat truncate proximally, tapering rapidly to elongate slightly clavate terminal process. In lateral view external lobe of *goncx* broad, projecting beyond levels attained by *epand* and *hypd*, with broadly-rounded tip. Inner lobe of *goncx* with heavily-built well sclerotized tip; *gonst* in ventral view short, fairly straight.

Variation: Minimal. The two females from Jonkershoek may represent two separate taxa as one is somewhat smaller than the other and has a largely black mystax.

Holotype: ♂ SOUTH AFRICA: *Western Cape*: 'South Africa / Du Toits Kloof [3345S:1911E] / 23.iii.1985 / J.G. Theron'.

Paratypes: SOUTH AFRICA: *Western Cape*: 2♀ 'South Africa / Stellenbosch / Jonkershoek [3358S:1858E] / 18.iii.1981 / J.G. Theron'; 1♂ 'South Africa / Stellenbosch / Jonkershoek / 18.3.1981 / G. Häppner'; 1♀ 'South Africa / Jonkershoek / 44/4 1983 / Leon v Zyl'; 1♀ 'J. Heyns / South Africa / Jonkershoek / 27.3.1953'; 1♀ 'South Africa / Bokfontein / Ceres [3320S:1919E] 8.3.85 / J.G. Theron'; 2♂ 1♀ 1? same data as holotype; 2♂ 2♀ 'South Africa / Du Toit's / Kloof Pass / 23.3.85 / J.G. Theron'.

Distribution, phenology and biology (Tables 1, 2): Recorded from four South African localities in the Western Cape mountains near Stellenbosch. Collected in March except one found in April.

Similar species: *R. cornuata* sp. n., *poa* sp. n. and *yeti* sp. n.

Rhabdogaster xanthokelis sp. n.

Figs 110–112

Etymology: From Greek *xanthos* (orange) + *kelis* (spot). Refers to the orange postpronotal lobes of this species.

Description: Based mainly on holotype ♂.

Head: Black, silver pruinose, white setose. Antenna black, setae white. Face entirely pruinose. Mystax entirely white, occupying approx. lower one-third of face. Frons and vertex entirely apruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver pruinose, white setose. Mesonotum with orange postpronotal lobes (contrasting with adjacent areas), extensively apruinose except for narrow lateral and posterior margins. Pleura extensively pruinose except for small area on anepisternum. Scutellum apruinose except for narrow anterior margin, with approx. 14 long *sctl s*. Postmetacoxal bridge entirely gold-silver pruinose. Legs: *cx* dark red-brown, gold-silver pruinose, white setose; *troc* dark red-brown; *fem* orange with dark red-brown anterior surfaces (progressively so from leg 1–3), white setose; *tib* orange with dark red-brown anterior surfaces, predominantly white setose (few black setae ventrodistally); *tar* dark red-brown, mostly black setose. Wing 6.3 x 2.4 mm, veins yellow anteriorly, brown posteriorly, membrane largely transparent, slightly yellow stained, almost entirely microtrichose (except for some proximal parts). Discal cell entirely microtrichose, costal cell extensively microtrichose except for part of posterior region.

Abdomen: Dark red-brown to black, silver pruinose, white setose. Tergites largely apruinose except for lateral margins, setae tiny medially, longer laterally. Sternites entirely pruinose with moderately long setae. Terminalia (Figs 110–112 paratype – some structures difficult to see as they are covered with many long black setae): *epand* in lateral view short, projecting beyond level attained by outer lobe of *goncx* and of similar length as *hypd*, tapering to narrowly-rounded tip; in dorsal view lobes separated but touching proximomedially; *hypd* in lateral view stout, smoothly curved; in ventral view broadly-rounded proximally, tapering to elongate, parallel-sided terminal process with slight indentation terminally. In lateral view external lobe of *goncx* short, broad, not projecting beyond levels attained by *epand* and *hypd*, with broadly-rounded tip.

Holotype: ♂ SOUTH AFRICA: *Limpopo*: 'S Africa: N Province #56 / Ben Lavin Nature Reserve / 23°08'S:29°57'E 2700ft / Date: 20.xi.1997 / Coll: Barraclough & James / Malaise trap'.

Paratypes: SOUTH AFRICA: *Limpopo*: 1♂ 'Tshakoma [Tshakhuma – 2303S:3018E], Zpbg. / Nov., 1931 / G. van Son'; 2♂ 2♀ same data as holotype; 2♀ 'S Africa: N Province #56 / Ben Lavin Nature Reserve /

23°08'S:29°57'E 2700ft / Date: 21.xi.1997 / Coll: Barraclough & James / Malaise trap'; 1♂ 1♀ '♂ + ♀ / in copulo', 'S. Africa. Transvaal / Outlook [? Uitkyk – 2549S:2925E] / 8 Dec 1978 / Nat. Mus. Bulawayo'.

Distribution, phenology and biology (Tables 1, 2): Recorded from four South African localities in Limpopo province. Collected in summer (November and December).

Similar species: *R. lindneri* sp. n., *major* and *oresbios* sp. n.

Rhabdogaster yeti sp. n.

Figs 113–115

Etymology: Sherpa name for the Abominable Snowman. Refers to the long white setae covering much of the body of this species.

Description: Based on holotype ♂.

Head: Black, silver pruinose, white setose. Antenna dark red-brown to black, setae white. Face extensively pruinose except for inverted triangular spot in dorsal half. Mystax entirely white, long, occupying almost entire face. Frons weakly pruinose ventrolaterally, vertex entirely pruinose (including ocellar tubercle), long white setose (especially on ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Black, silver pruinose, long white setose. Mesonotum extensively apruinose except laterally. Pleura extensively pruinose except for spots on an- and katepisternum, long white setose. Scutellum entirely apruinose, with numerous long white *sctl s* along margin and over disc. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, long white setose; *troc*, *fem*, *tib* and *tar* dark red-brown with slightly paler extremities, almost entirely white setose (minor setae long). Wing 3.9 x 1.4 mm, veins orange-brown, membrane transparent, unstained, entirely devoid of microtrichia (if some are present they are difficult to distinguish from dust particles). Discal and costal cells entirely without microtrichia.

Abdomen: Dark red-brown to black, silver pruinose, white setose. Tergites apruinose middorsally and along anterior and posterior margins, setae white, short medially, long laterally. Sternites entirely pruinose, long white setose. Terminalia (Figs 113–115 somewhat damaged, left *goncx* missing): *epand* in lateral view short, not projecting beyond levels attained by outer lobe of *goncx* and *hypd*, tapering to acute tip; in dorsal view lobes moderately fused proximomedially; *hypd* in lateral view, curved with slightly clavate tip; in ventral view broadly-rounded proximally, tapering rapidly to elongate terminal process. In lateral view external lobe of *goncx* long, projecting beyond levels attained by *epand* and *hypd*, broad, tapering to rounded tip; *gonst* curved basally, straight and narrow distally.

Variation: The female paratypes agree closely with the male holotype except that they are all larger (wing length ranging from 4.9 to 5.4 mm).

Holotype: ♂ NAMIBIA: 'Auob. [2626S:2037E] S.W.Ka- / lahari, iv-1933 / G. van Son'.

Paratypes: NAMIBIA: 1♀ 'Seeheim [2649S:1747E] / 15.iv.1933 / G. v. Son'; SOUTH AFRICA: *Eastern Cape*: 1♀ 'Willowmore [3317S:2329E] / Capland / Dr. Brauns / 3 1917 [sideways]'; 2♀ double-mounted side by side on same card], 'Capland / Willowmore / 25.3.1920 / Dr. Brauns'.

Note: Although the holotype was identified as *Holopogon fugax* Loew by Oldroyd in 1973, he failed to include the record in his coverage of southern African asilids (Oldroyd, 1974). *R. yeti* does strongly resemble *Afroholopogon fugax* (Loew, 1858), but the complete postmetacoxal bridge immediately separates these taxa.

Distribution, phenology and biology (Tables 1, 2): Recorded only from Namibia and South Africa. Known from two localities in Namibia and from Willowmore in the Eastern Cape of South Africa. Although there are many kilometres between these localities, the specimens appear conspecific. Collected in March (South Africa) and April (Namibia).

Similar species: *R. cornuata* sp. n., *poa* sp. n. and *theroni* sp. n.

Rhabdogaster zebra sp. n.

Figs 116–118

Etymology: From ‘zebra’, a striped African equine. Refers to the zebra-like pattern of this black species with its silver pruinescence.

Description: Based mainly on holotype ♂ (slightly twisted as a result of being mounted from alcohol).

Head: Black, silver pruinose, white setose. Antenna dark red-brown to black, setae white (a few black dorsally on pedicel). Face entirely shiny pruinose. Mystax entirely white, occupying approx. lower one third of face. Frons partly pruinose ventrally, vertex entirely apruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis and palpi dark red-brown, setae white.

Thorax: Dark red-brown to black, silver pruinose, white setose. Mesonotum dark red-brown with brown-red postpronotal and postalar lobes, extensively apruinose (including postpronotal and postalar lobes) except for silver pruinose lateral and posterior margins, and a pair of narrow strips following dorsocentral setae (strips broader immediately posterior of postpronotal lobes). Pleura extensively pruinose except for spots on katepisternum (weak) and anepisternum. Scutellum largely apruinose except for pruinose ring encircling disc, with 2 moderately developed *sctl s* accompanied by approx. 8 small setae. Postmetacoxal bridge entirely silver pruinose. Legs: *cx* dark red-brown, silver pruinose, white setose; *troc*, *tib* and *tar* dark red-brown except for proximal parts of *tib* that are orange, setae mostly white (black ones occur on *tar*). Wing 3.8 x 1.5 mm, veins brown-yellow, membrane transparent, unstained, largely microtrichose (absent proximally). Discal cell entirely microtrichose, costal cell largely lacking microtrichia except for a few distally.

Abdomen: Dark red-brown to black, silver pruinose, black and white setose. Tergites largely apruinose except for anterolateral corners, setae black on apruinose areas, white on pruinose ones. Sternites entirely pruinose, white setose. Terminalia (Figs 116–118 paratype): *epand* in lateral view, stout, projecting to same level attained by outer lobe of *goncx*, tapering to somewhat truncate tip; in dorsal view lobes separated, but touching proximomedially; *hypd* in lateral view, shorter than both *epand* and outer lobe of *goncx*, slightly curved; in ventral view broadly-rounded proximally, tapering rapidly before expanding to broadly-bilobed terminal process. In lateral view external lobe of *goncx* long, proximal half fairly broad, distal half elongate, projecting well beyond level attained by *hypd*.

Variation: A uniform species. Apruinose area of katepisternum may be poorly or fairly well defined. Female unknown.

Holotype: ♂ ANGOLA: ‘Angola: 5 km e. / Capangombe 15°05'S / 17–20.x.1974 13°10'E / Malaise trap’.

Paratypes: 3♂ same data as holotype.

Distribution, phenology and biology (Tables 1, 2): Recorded only from the type locality in Angola. Malaise-trapped in October.

Similar species: *R. kosmos* sp. n.

Rhabdogaster zilla sp. n.

Figs 119–121

Etymology: From New Latin *zilla* (a genus of the mustard family). Refers to the mustard-like colour of the legs of this species.

Description: Based mainly on holotype ♂.

Head: Dark red-brown, silver-gold pruinose, pale yellow setose. Antenna: Scape and pedicel orange, postpedicel and style dark red-brown, setae pale yellow. Face entirely pruinose. Mystax entirely pale yellow, occupying lower facial margin only. Frons and vertex entirely gold pruinose (including ocellar tubercle). Occiput entirely pruinose. Proboscis red-brown distally, orange-yellow proximally, palpi entirely yellow, setae pale yellow.

Thorax: Dark red-brown to black, silver-gold pruinose, pale yellow setose. Mesonotum extensively pruinose (including postpronotal lobes) except for pair of narrow anteromedial stripes and three tiny spots (1 immediately anterior of transverse suture, 2 postsuture). Pleura almost entirely pruinose except for tiny spots on an- and katepisternum. Scutellum entirely pruinose, with 6 poorly developed *sctl s*. Postmetacoxal bridge entirely silver-gold pruinose. Legs: *cx* brown-yellow, silver pruinose, pale yellow setose; *troc*, *fem*, *tib* and *tar* entirely mustard yellow, major *fem* 1 setae pale yellow, other parts have black and pale yellow setae. Wing 6.4 x 2.0 mm, veins brown-yellow, membrane transparent, unstained, largely microtrichose (except proximally). Discal cell entirely microtrichose, costal cell largely without microtrichia except distally.

Abdomen: Uniformly dark red-brown, silver-gold pruinose, white setose. Terminalia (Figs 119–121 paratype): *epand* in lateral view, stout, projecting beyond levels attained by outer lobe of *goncx* and *hypd*, tapering to narrowly-rounded tip; in dorsal view lobes separated, but touching proximomedially; hypd in lateral view, shorter than both *epand* and outer lobe of *goncx*, straight; in ventral view broadly-rounded proximally, tapering rapidly to broadly-bilobed tip. In lateral view external lobe of *goncx* and *gonst* projecting beyond tip of outer lobe; *gonst* in ventral view slightly curved.

Holotype: ♂ BOTSWANA: 'Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 1 / vi-86'.

Paratypes: BOTSWANA: 1♂ 1♀ 'Malaise Trap 1 / Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / 16-v-1984. / Mercury vapour lamp'; 1♂ 'Malaise Trap 1 / Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / 6-v-1984. / Mercury vapour lamp'; 3♂ 1♀ 'Malaise Trap 1 / Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / 31-v-1984. / Mercury vapour lamp'; 1♀ 'Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / Malaise Trap 1 / 25-v-1984'; 6♂ 2♀ 'Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 1 / vi-86'; 1♂ 'Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 2 / vi-86'; 2♂ 1♀ 'Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 3 / vi-86'; 1♀ 'Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 1 / 31-v-85'; 1♂ 'Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 2 / 30-

vi-85'; 1♂ 'Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 3 / vii-86'; 1♀ 'Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P Forchhammer / Malaise trap 2 / vii-86'; 4♂ 'Malaise trap 3 / Botswana SE2226BD / Farmers Brigade area / ca. 6 km SE of Serowe / Coll. P. Forchhammer / 20-v-1984 / *A. tortilis* Woodland'; 2♂ 'Malaise trap 3 / Forestry Nursery / Botswana SE2226BD / Farmers Brigade area / ca. 6 km SE of Serowe / Coll. P. Forchhammer / 13-v-1984 / *A. tortilis* Woodland'; 1♂ 'Malaise trap 3 / Botswana SE2226BD / Farmers Brigade area / ca. 6 km SE of Serowe / Coll. P. Forchhammer / 8-v-1984 / *A. tortilis* Woodland'; 1♂ 'Botswana SE2226BD / Farmers Brigade area / ca. 6 km SE of Serowe / Coll. P Forchhammer 13oom / *A. tortilis* woodland / Malaise trap 3 / 30-vii-84 / Forestry Nursery'; 1♂ 'Botswana SE2226BD / Farmers Brigade area / ca. 6 km SE of Serowe / Coll. P Forchhammer 13oom / *A. tortilis* woodland / Malaise trap 3 / 11-viii-84 / Forestry Nursery'; 2♀ 'Botswana SE2226BD / Serowe. Farmer's / Brigae. Malaise / trap. Forchhammer / vi.90'; 1♂ 'Botswana SE2226BD / Farmers Brigade area / ca. 6 km SE of Serowe / Coll. P Forchhammer 13oom / *A. tortilis* woodland / 10-iv-84 / Forestry Nursery'; 1♂ 'Mal. Trap / Serowe; Botswana / Forchhammer Leg. / Date 28-6/83'; 1♂ 'Serowe / MT1 / vii-1985'. SOUTH AFRICA: *Northern Cape*: 1♂ 'Sth Africa Cape Prov / Roaring Sands Resort / nr. Witsand. *Acacia* / Woodland/sandy area / 2822CB 17-18.3.1982 / J. Londt & L. Schoeman'; 1♂ 'S Africa: N Cape #28 / 10 km SW of Prieska / 29 44'S:22 42'E 1000m / Date: 18.iii.1991 / Whittington & Londt / Dry river bed, *Acacia*'.

Distribution, phenology and biology (Tables 1, 2): Recorded from Botswana and South Africa. Known mainly from Malaise-trapped material collected by Per Forchhammer at Serowe, Botswana, but also from two localities in Northern Cape, South Africa. Collected from March through to July, *zilla* appears to be a late-summer and winter-active species.

Similar species: *R. glabra* sp. n.

Rhabdogaster zopheros sp. n.

Figs 122–124

Etymology: From Greek *zopheros* (dusky). Refers to the blackish coloration of this species.

Description: Based on holotype ♂.

Head: Black, gold-silver pruinose, black and white setose. Antenna black, setae black. Face entirely pruinose, weakly so centrally. Mystax black dorsally, white ventrally, occupying lower half of face. Frons and vertex extensively apruinose except for 2 pruinose areas above antennal insertions; ocellar setae black. Occiput entirely pruinose. Proboscis and palpi black, setae white.

Thorax: Black, gold-silver pruinose, pale yellow-white setose. Mesonotum with extensive apruinose areas including parts of postpronotal and postalar lobes, a pair of dorsomedial stripes and two large areas anterior and posterior of transverse suture. Pleura extensively pruinose except for apruinose spots on an- and katepisternum. Scutellum entirely pruinose, with approx. 6 *sctl s*. Postmetacoxal bridge entirely silver pruinose. Legs: entirely black; *cx* silver pruinose; predominantly white setose but some black setae on tibiae (ventrodistally) and tarsi (ventrally). Wing 4.4 x 1.6 mm, veins yellow-brown, membrane transparent, unstained, entirely microtrichose. Discal and costal cells entirely microtrichose.

Abdomen: Black, gold-silver pruinose, white setose. Tergites distally broadly apruinose. Sternites entirely pruinose. Terminalia (Figs 122–124): *epand* in lateral view gradually tapering and gently downcurved distally; shorter than external lobe of gonocoxite; lobes narrowly joined proximally and converging distally; *hypd* heavily-built, in lateral view strongly upcurved distally and about as long as external lobe of *goncx*; broadly-rounded basally in ventral view, tapering to bilobed distal end. External lobe of *goncx* longer than *epand* lobe and of similar length as *hypd*, distal end as a long inverted u-shaped lobe; well-sclerotised long, thin, internal lobes. Gonostyli in ventral view long and straight. Aedeagus with broad dorsoventrally flattened spade-shaped apex.

Variation: Paratypes agree well with the holotype. The mystax of females may be more extensively black and paler setae may be brown.

Holotype: ♂ ANGOLA: 'Angola (A6) / Tundavala, / 9 mls. NW. Sa / da Bandeira [1400S:1510E] / 23.ii.1972', 'Southern / Arican Exp. / B.M. 1972-1.' (BMNH).

Paratypes: 2♂ 6♀ same data as holotype (BMNH, 1♂ 1♀ NMSA).

Distribution, phenology and biology (Tables 1, 2): Recorded only from the type locality in Angola. Collected in February.

Similar species: *R. melas* sp. n. and *nyx* sp. n.

Unnamed species of interest

Species A

The following unique female is interesting as it possesses distinctively marked wings, reminiscent of *maculipennis*, but comes from Namaqualand, a region otherwise poorly represented by *Rhabdogaster* records. I refrain from describing this species in the absence of a male specimen, but include the record in plotting the generic distribution (Fig. 128).

SOUTH AFRICA: 1♀ 'R.S.A.: N Cape #94 / 21 km NE Garies / 30°27'S:18°04'E 810m / Date: 27.viii.1995 / Coll: J. & A. Londt / Studers Pass Stream'.

Species B

Two large female specimens are of interest as one is definitely from Kenya and the other probably also from that country, where only two other species are known. These specimens have distinctively marked wings unlike any other known species. A description must await better material that includes a male. The known locality is plotted in Fig. 128.

KENYA: 1♀ 'Kenya: Kajiado Dist. / Nguruman area 700m / 01°50'S : 36°56'E / Coll: I. Abu-Zinid / Date: 27.vi.1990'; 1♀ 'Samburu Dist. [0346S:3917E or 0115N:3700E] / June 1944, / E. Opiko' (BMNH).

Species C

A well-preserved unique female from the Krantzkloof Nature Reserve is not conspecific with other species in KwaZulu-Natal, although with its rather orange-brown wings and shiny black apruinose abdomen it is reminiscent of *oresbios*, known only from higher altitude (montane) areas of the province. Its identification will be clarified with the discovery of a male from the same locality. The locality is plotted in Fig. 128.

SOUTH AFRICA: 1♀ 'South Africa: Natal / Kranzkloof Nat. Res. / 2930DD / Date: 8.xi.1984 / Coll: J.G.H. Londt'.

Species D

A pair of females collected at the Katani Game Reserve, Tanzania, appear to belong to an undescribed species. These specimens are unusual in having a black mystax (a character state only found in a few South African species). Clarification of the status of these specimens must await the discovery of males. The locality is plotted in Fig. 128.

TANZANIA: 2♀ 'Tanzania: 41 mi. S. / Mpanda [0543S:3047E], Katani Game / Res. 900m. 18-xi-67 / E.S. Ross & / A.R. Stephen' (CASC).

Key to species of *Rhabdogaster*

Notes: The key is chiefly designed for use with pinned male specimens. Some specimens may show irregular and asymmetrical patterns of pruinescence. This is often a sign of wear and allowance must be made for possible damage of this kind. Microtrichia are best viewed with backlighting. The word 'predominantly' is used when some specimens show some slight variation. It is essential to check identifications arrived at using this key, by referring to descriptions and illustrations of male terminalia.

1 Postmetacoxal bridge entirely pruinose 4
– Postmetacoxal bridge extensively or entirely apruinose 2

2 Scutellar macrosetae black; hind femora with black anteroventral macrotsetae; anepisternum extensively apruinose; ♂ terminalia as in Figs 74–76 .... *oldroydi* (Lindner, 1973)
– Scutellar macrosetae pale yellow-white to white; hind femora with anteroventral macrosetae pale yellow-white to white; anepisternum extensively pruinose, but with a shiny apruinose area 3

3 Scutellum pruinose except for hind margin and central part of disc; ♂ terminalia as in Figs 104–106 .... **tanylabis** sp. n.
– Scutellum largely apruinose except for narrow anterior margin; ♂ terminalia as in Figs 43–45 .... **karoo** sp. n.

4 Antennal scape and pedicel yellow, orange or light brown, contrasting with red brown postpedicel 5
– Antennal scape, pedicel and postpedicel dark red-brown to black 10

5 Antennal setae pale yellow-white to white 6
– Antennal setae dark red-brown to black 7

6 Scutellum and anepisternum entirely pruinose; wing membrane with characteristic dark markings anteriorly; ♂ terminalia as in Figs 52–54 .... *maculipennis* Engel, 1929
– Scutellum extensively pruinose except for hind margin; anepisternum extensively pruinose except for a small apruinose spot; wing membrane lacking dark markings; ♂ terminalia as in Figs 27–30 ....*flavida* (Lindner, 1973)

7 Scutellar setae black; hind femur with black anteroventral macrosetae 8
– These setae pale yellow-white 9

8 Second palpal segment black setose; scutellum entirely pruinose; costal cell entirely microtrichose; ♂ terminalia as in Figs 92–94 ....*pulverulentus* (Loew, 1858)
– Second palpal segment white setose; scutellum extensively pruinose, but with apruinose hind margin; costal cell entirely lacking microtrichia; ♂ terminalia as in Figs 9–11 .... **bicolor** sp. n.

9 ♂ terminalia as in Figs 31–33 .... **glabra** sp. n.
– ♂ terminalia as in Figs 119–121 .... **zilla** sp. n.

10 Mystax predominantly dark red-brown to black (*zopheros* with black setae dorsally and white ventrally in more or less equal numbers) 11
– Mystax predominantly pale yellow to white 13

11 Femora entirely black; ♂ terminalia as in Figs 122–124 .... **zopheros** sp. n.
– Femora at least partly yellow or orange 12

12 Scutellar macrosetae black; ♂ terminalia as in Figs 71–73 .... **nyx** sp. n.
– Scutellar macrosetae white; ♂ terminalia as in Figs 59–61 ....**melas** sp. n.

13 Antennal setae predominantly dark red-brown to black 14
– Antennal setae predominantly white to yellow 25

14 Second palpal segment predominantly black setose; ♂ terminalia as in Figs 6–8 .... **atropalpus** sp. n.

– Second palpal segment predominantly pale yellow to white setose 15

15 Hind femur with black anteroventral macrosetae; ♂ terminalia as in Figs 18–20 .... **cuthbertsoni** sp. n.

– Hind femur with pale yellow to white anteroventral macrosetae 16

16 Scutellar setae white to pale yellow 17

– Scutellar setae dark red-brown to black 20

17 Anepisternum entirely pruinose; ♂ terminalia as in Figs 98–100 .... *rustica* Oldroyd, 1974

– Anepisternum with apruinose area 18

18 Scutellum entirely pruinose; ♂ terminalia as in Figs 95–97 .... **quasinuda** sp. n.

– Scutellum with apruinose hind margin 19

19 Discal cell entirely microtrichose; costal cell with some microtrichia but not entirely microtrichose; ♂ terminalia as in Figs 83–85 .... **pedion** sp. n.

– Discal cell not entirely microtrichose; costal cell completely lacking microtrichia; ♂ terminalia as in Figs 21–23 .... **eremia** sp. n.

20 Scutellum entirely pruinose 21

– Scutellum extensively pruinose, but with apruinose hind margin 22

21 Anepisternum entirely pruinose; ♂ terminalia as in Figs 24–26 .... **etheira** sp. n.

– Anepisternum extensively pruinose, but with a small apruinose spot; ♂ terminalia as in Figs 40–42 .... **kalyptos** sp. n.

22 Anepisternum entirely pruinose 23

– Anepisternum with a small apruinose spot 24

23 Frons and vertex entirely pruinose; costal cell lacking microtrichia; ♂ terminalia as in Figs 86–88 .... **pellos** sp. n.

– Frons and vertex not entirely pruinose, but with an apruinose stripe between eyes that includes ocellar tubercle; costal cell entirely microtrichose; ♂ terminalia as in Figs 62–64 .... *nitida* Hull, 1967

24 Discal cell entirely microtrichose; ♂ terminalia as in Figs 80–82 .... **oribi** sp. n.

– Discal cell partly without microtrichia; ♂ terminalia as in Figs 65–70 .... *nuda* Loew, 1858

25 Scutellar setae dark red-brown to black; ♂ terminalia as in Figs 12–14 .... **charma** sp. n.

– Scutellar setae pale yellow to white 26

26 Anepisternum entirely pruinose 27

– Anepisternum with an apruinose area 28

27 Frons and vertex entirely pruinose; scutellum extensively pruinose, but with apruinose hind margin; ♂ terminalia as in Figs 125–127 .... *cinerascens* (Wulp, 1899)

– Frons and vertex not entirely pruinose, but with an apruinose stripe between eyes that includes ocellar tubercle; scutellum entirely pruinose; ♂ terminalia as in Figs 101–103 .... **sinis** sp. n.

28 Scutellum pruinose except for hind margin (a few specimens are entirely pruinose); ♂ terminalia as in Figs 34–39 .... *gracilis* (Engel & Cuthbertson, 1937)

– Scutellum more extensively apruinose 29

29 Scutellum pruinose except for hind margin and central part of scutellar disc 30

– Scutellum largely apruinose, pruinescence when present limited to anterior margin or small areas anterolaterally 31

30 Frons and vertex entirely pruinose; discal cell partly lacking microtrichia; anepisternum with apruinose area not occupying more than half area of pleurite; ♂ terminalia as in Figs 46–48 .... **kosmos** sp. n.

– Frons and vertex extensively apruinose; discal cell entirely microtrichose; anepisternum with extensive apruinose area occupying more than half area of pleurite; ♂ terminalia as in Figs 116–118 .... **zebra** sp. n.

31 Discal cell entirely microtrichose 32

– Discal cell, if not entirely devoid of microtrichia, with at least a small area lacking microtrichia 35

32 Costal cell entirely microtrichose 33

– Costal cell at least partly lacking microtrichia 34

33 Mesonotum and abdominal tergites orange laterally; fine pale setae generally short and white; ♂ terminalia as in Figs 49–51 .... **lindneri** sp. n.

– Mesonotum and abdominal tergites uniformly black; fine pale setae generally long and yellow; ♂ terminalia as in Figs 77–79 .... **oresbios** sp. n.

34 Frons and vertex extensively pruinose except for an apruinose stripe between eyes that includes ocellar tubercle; costal cell lacking microtrichia; antennal setae entirely white; ♂ terminalia as in Figs 55–58 .... *major* Oldroyd, 1970

– Frons and vertex extensively apruinose except for a pruinose area adjacent to antennal bases; costal cell with some microtrichia; antennal setae may be mixed black and white; ♂ terminalia as in Figs 110–112 .... **xanthokelis** sp. n.

35 Discal cell entirely lacking microtrichia 36

– Discal cell at least partly microtrichose 37

36 Scutellar disc with long white setae; ♂ terminalia as in Figs 113–115 ... **yeti** sp. n.

– Scutellar disc lacking setae; ♂ terminalia as in Figs 15–17 .... **cornuata** sp. n.

37 Mystax occupies about half of face; legs entirely dark red-brown to black; ♂ terminalia as in Figs 89–91 .... **poa** sp. n.

– Mystax occupies about two-thirds of face; distal ends of femora and proximal parts of tibiae orange; ♂ terminalia as in Figs 107–109 .... **theroni** sp. n.

DISCUSSION

Taxonomy

Although clearly defined by the possession of a fully sclerotised postmetacoxal bridge, the genus is taxonomically difficult as few species-groups or even pairs of what could be viewed as sister-species can be identified. While male terminalia serve best to characterise species, even these do not offer many character states that would make species diagnosis simple. I earlier (Londt 1993) predicted that the number of the then-known species (8 listed—one that was subsequently classified in *Afroholopogon*) could easily be trebled. This was an underestimation, and it is now obvious that the genus is likely to be a pervasive element in afrotropical grasslands. Being rather small and generally poorly collected flies, it is likely that a considerable number of species still remain undiscovered.

Distribution

Rhabdogaster is endemic to and widely distributed within the Afrotropical Region (Fig. 128). All but a few records are from the African mainland; the others being from Yemen, Oman and Saudi Arabia (not shown in Fig. 128). Most records are from southern Africa where the majority of species occur. Distribution mirrors that of grassland/savannah biomes. The single record from West Africa (Ivory Coast) probably merely indicates a paucity of collecting in this part of Africa.

Biology

Little is known about the biology of *Rhabdogaster* species. All appear to be associated with grassland. The flies perch, head facing upwards, often on upright grass stalks (culms), the body being held at an angle of about 45°. Population densities may be high. This appears to be particularly evident for species inhabiting the relatively short montane grasslands found at higher altitudes in the South African (KwaZulu-Natal) Drakensberg mountain range. These flies, being fairly small, are not particularly conspicuous and are best collected by random sweeping with an entomological net: large samples are often easily obtained. Females have unspecialised ovipositors and probably merely drop their eggs to the ground like many other grassland asilids (Londt 1994*b*). In a recent study of afrotropical asilid prey items databased at the Natal Museum (Londt 2006), the following was written pertaining to the genus: '*Rhabdogaster* Loew, 1858 (14): Hymenoptera (9), Diptera (2), Araneida (1), Hemiptera (1), Isoptera (1). The Hymenoptera make up 64% of prey records. Of these the Formicidae (7) represent 78%. These ants are all winged alates, and so it can be assumed that this is a case of opportunistic feeding.'

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TABLE 1

Phenology of Afrotropical *Rhabdogaster* species. Closed circles – positive records, open circles – possible alternative records. Abbreviations represent the months of collection starting with July (mid-winter).

	J	A	S	O	N	D	J	F	M	A	M	J
atropalpus	–	•	•	–	–	–	–	–	–	–	–	–
bicolor	•	–	–	–	–	–	–	–	–	–	–	–
charma	–	–	–	–	–	•	•	–	–	–	–	–
cinerascens	–	–	–	•	•	•	–	•	–	–	–	•
cornuata	–	–	–	–	–	–	–	–	•	–	–	–
cuthbertsoni	–	–	–	–	○	–	–	○	–	–	–	–
eremia	–	–	–	–	–	–	–	–	–	•	–	–
etheira	–	•	–	–	–	–	–	–	–	•	–	–
flavida	–	–	–	–	–	–	•	•	–	•	–	–
glabra	–	–	–	–	–	–	–	–	–	•	–	–
gracilis	•	–	•	•	•	•	•	–	•	•	•	•
kalyptos	–	–	–	–	–	–	–	–	•	–	–	–
karoo		–	–	–	–	•	–	–	–	–	–	–
kosmos	–	–	–	–	–	–	–	•	•	–	–	–
lindneri	–	•	–	–	•	•	–	–	•	•	–	–
maculipennis	–	–	–	–	–	–	–	–	–	–	•	–
major	–	•	–	–	–	–	–	–	•	–	•	–
melas	–	–	–	–	–	–	–	–	•	–	–	–
nitida	–	–	–	–	–	–	–	–	•	•	•	–
nuda	–	–	–	•	–	–	–	–	–	•	•	–
nyx	–	–	–	–	•	–	–	–	–	•	–	–
oldroydi	–	–	–	–	•	–	•	•	•	–	–	–
oresbios	–	–	–	–	•	•	•	•	–	–	–	•
oribi	–	–	–	–	•	–	–	–	–	–	–	–
pedion	–	–	–	–	•	•	•	•	•	•	•	•
pellos	–	–	–	–	•	–	•	–	•	–	•	–
poa	–	–	–	–	•	•	•	•	–	•	–	–
pulverulentus	–	–	•	–	–	•	–	•	•	•	•	–
quasinuda	–	–	–	–	–	–	–	–	–	•	–	–
rustica	–	–	–	–	–	–	–	•	•	•	•	–
sinis	–	–	–	–	–	–	–	–	•	•	–	–
tanylabis	–	–	–	–	–	–	•	•	•	–	–	–
theroni	–	–	–	–	–	–	–	–	•	•	–	–
xanthokelis	–	–	–	–	•	•	–	–	–	–	–	–
yeti	–	–	–	–	–	–	–	–	•	•	–	–
zebra	–	–	–	•	–	–	–	–	–	–	–	–
zilla	•	•	–	–	–	–	–	–	•	•	•	•
zopheros	–	–	–	–	–	–	–	•	–	–	–	–
Number	3	5	3	4	11	10	9	11	18	18	10	5

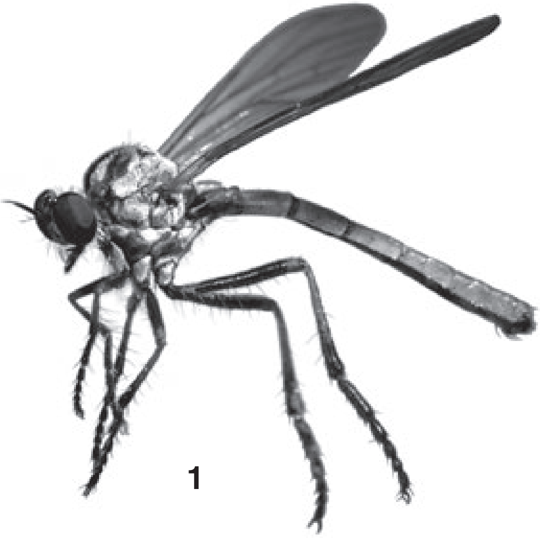
TABLE 2

Distribution of Afrotropical *Rhabdogaster* species. Abbreviations: AN – Angola, BO – Botswana, CO – Democratic Republic of Congo, ER – Eritrea, IV – Ivory Coast, KE – Kenya, LE – Lesotho, MA – Malawi, MO – Mozambique, NA – Namibia, OM – Oman, SA – South Africa, SU – Sudan, SW – Swaziland, TA – Tanzania, UG – Uganda, YE – Yemen, ZA – Zambia, ZI – Zimbabwe. (Saudi Arabian records of *R. cinerascens* are excluded.)

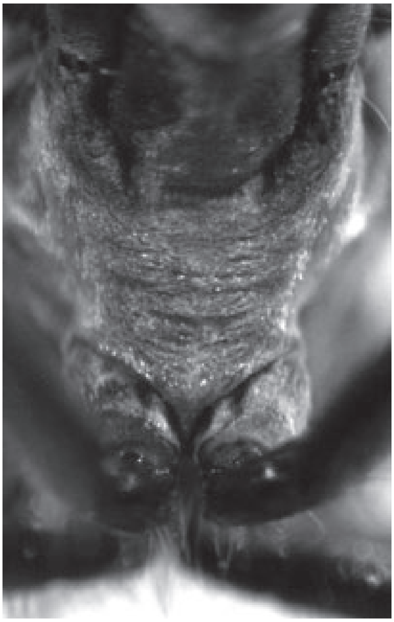
	SA	LE	SW	NA	BO	ZI	ZA	AN	MO	CO	MA	TA	KE	UG	SU	IV	ER	YE	OM
atropalpus	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
bicolor	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
charma	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
cinerascens	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	•	•	•
cornuata	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
cuthbertsoni	–	–	–	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–
eremia	–	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
etheira	•	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
flavida	–	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
glabra	–	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
gracilis	•	–	–	•	•	•	•	–	–	–	•	•	•	–	•	–	–	–	–
kalyptos	–	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
karoo	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
kosmos	–	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
lindneri	–	–	–	–	–	–	–	–	–	–	–	–	•	•	–	•	–	–	–
maculipennis	–	–	–	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–
major	–	–	–	–	–	–	–	–	–	•	–	–	–	–	–	–	–	–	–
melas	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

TABLE 2 *(continued)*

	SA	LE	SW	NA	BO	ZI	ZA	AN	MO	CO	MA	TA	KE	UG	SU	IV	ER	YE	OM
nitida	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
nuda	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
nyx	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
oldroydi	–	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
oresbios	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
oribi	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
pedion	•	•	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
pellos	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
poa	•	–	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–
pulverulentus	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
quasinuda	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
rustica	•	–	–	–	–	–	–	–	•	–	–	–	–	–	–	–	–	–	–
sinis	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
tanylabis	•	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
theroni	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
xanthokelis	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
yeti	•	–	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
zebra	–	–	–	–	–	–	–	•	–	–	–	–	–	–	–	–	–	–	–
zilla	•	–	•	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–	–
zopheros	–	–	–	–	–	–	–	•	–	–	–	–	–	–	–	–	–	–	–
Number	25	1	2	10	3	3	1	2	1	1	1	1	2	1	1	1	1	1	1



1



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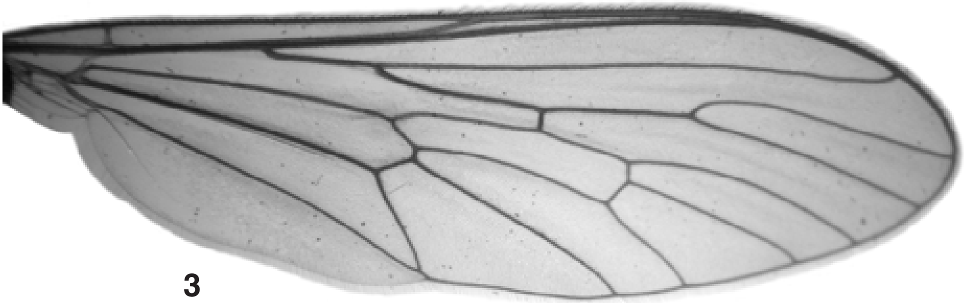

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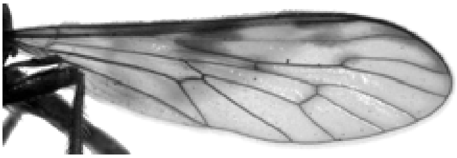

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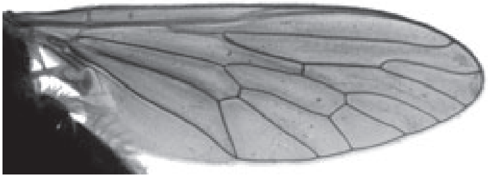
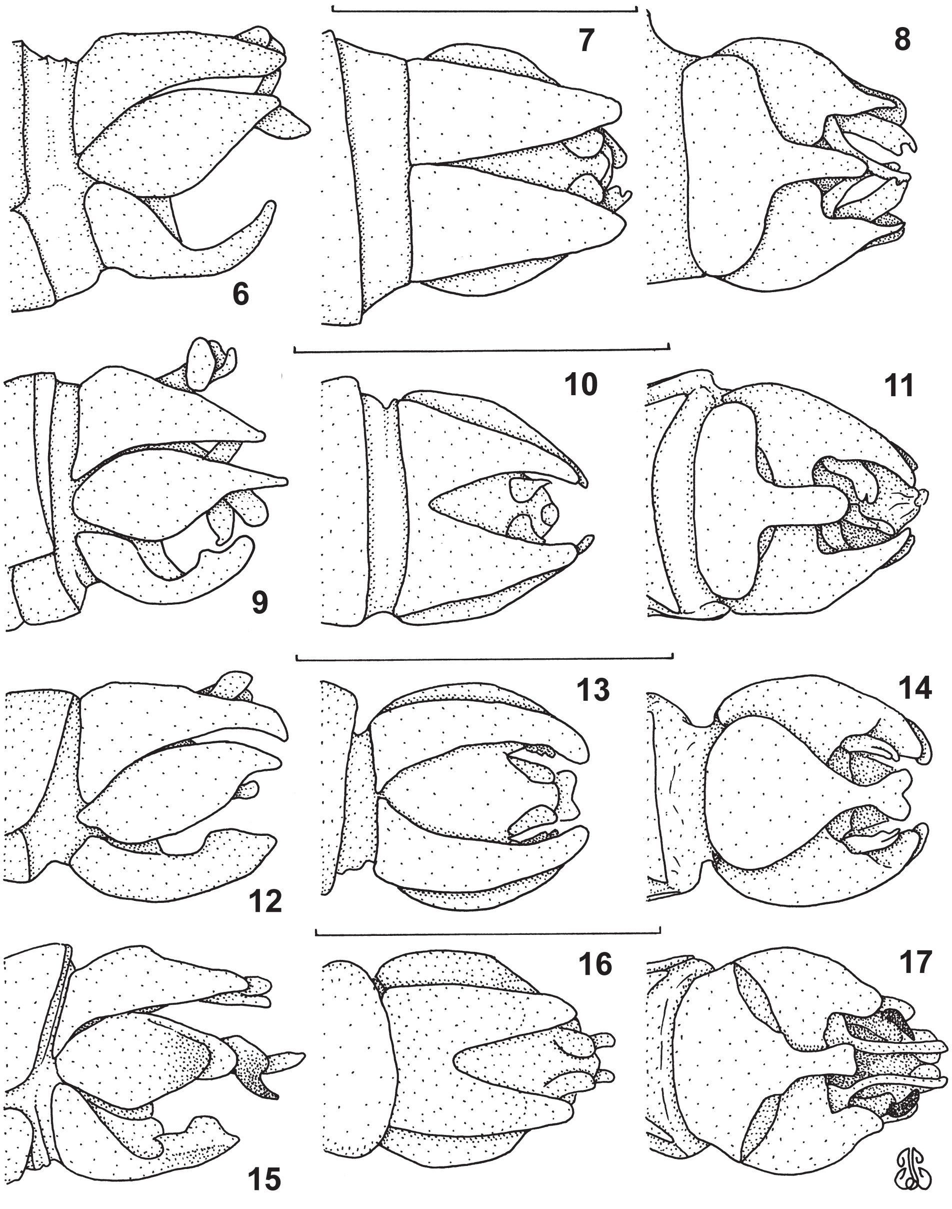
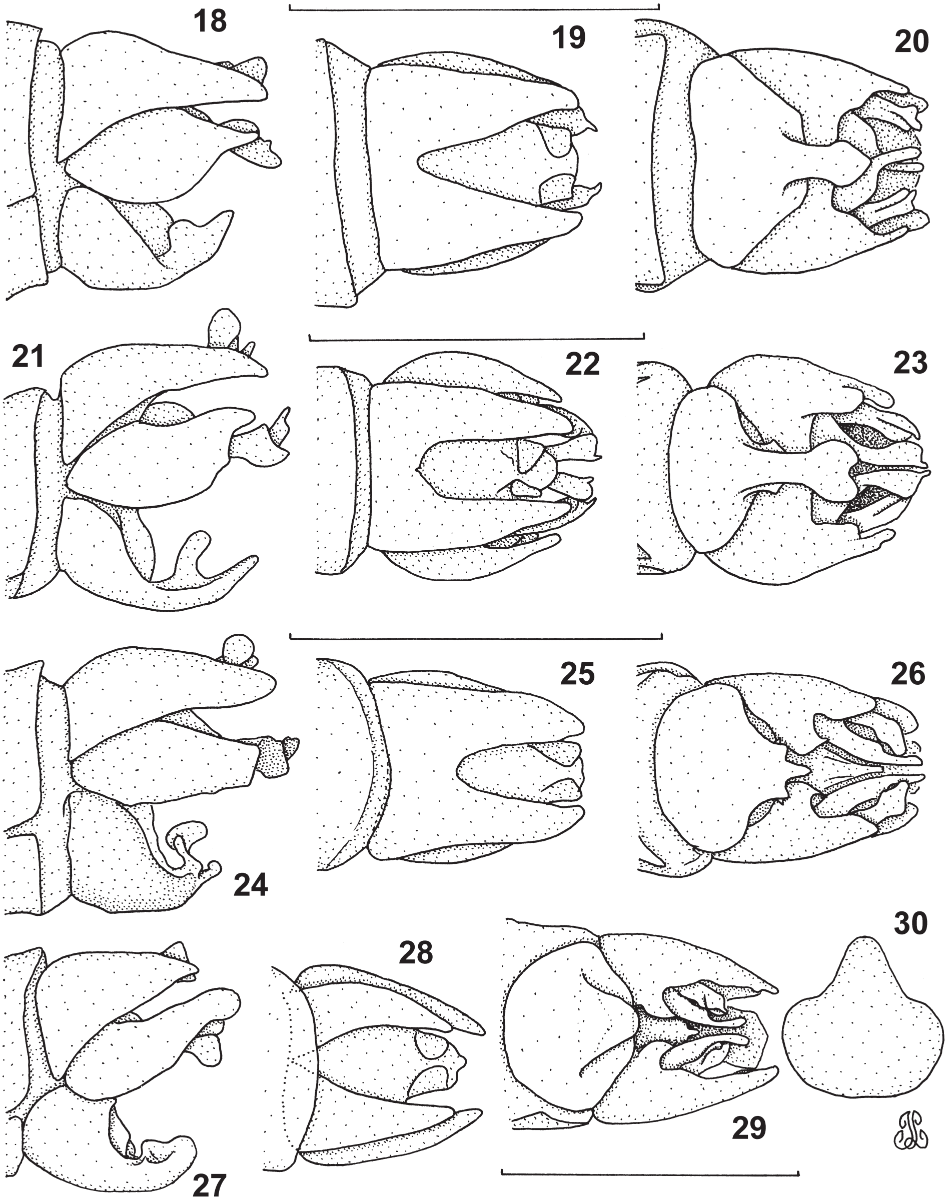


5

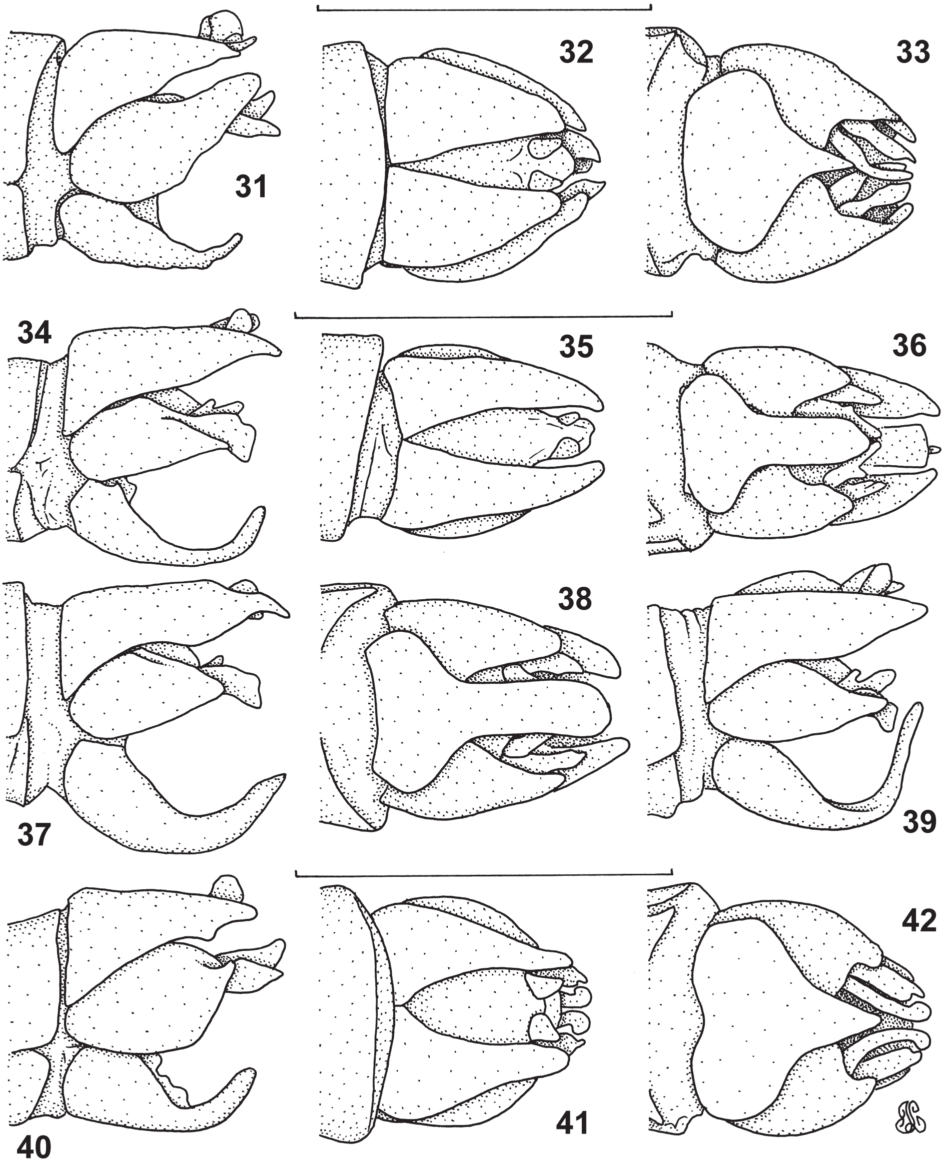
Figs 1–5. *Rhabdogaster* species: (1–3) *R. pedion* sp. n., Normandien Forest: (1) entire male, (2) sclerotised postmetacoxal bridge, (3) wing venation; (4) *R. maculipennis* Engel, 1929, lectotype, male wing showing pattern of staining; (5) *R. oresbios* sp. n., wing showing dark appearance caused by dark microtrichia.



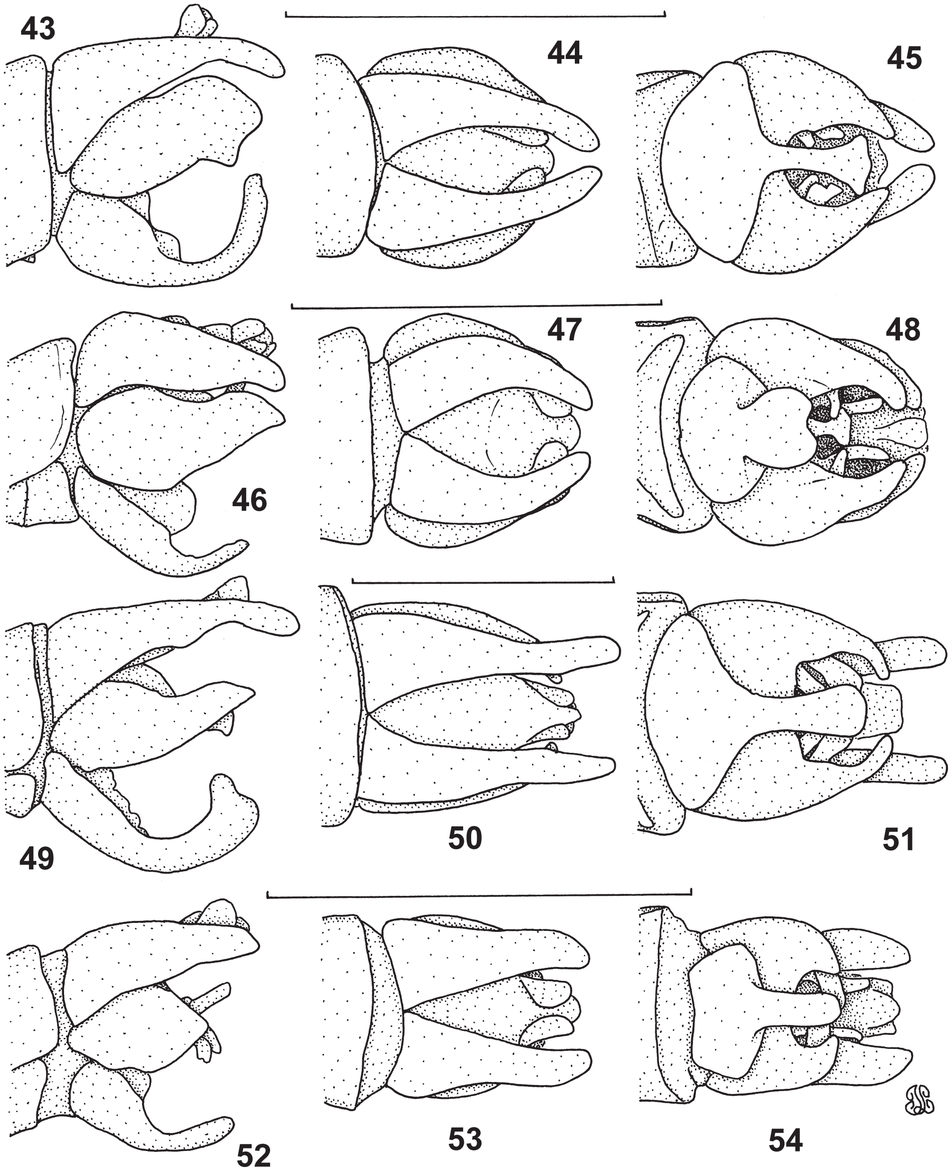
Figs 6–17. *Rhabdogaster* species, male terminalia: (6–8) *R. atropalpus* sp. n., Pakhuis Pass paratype: (6) lateral, (7) dorsal, (8) ventral; (9–11) *R. bicolor* sp. n., Pietermaritzburg holotype: (9) lateral, (10) dorsal, (11) ventral; (12–14) *R. charma* sp. n., Uitkyk paratype: (12) lateral, (13) dorsal, (14) ventral; (15–17) *R. cornuata* sp. n., Table Mt. holotype: (15) lateral, (16) dorsal, (17) ventral. Scale bars = 1 mm.



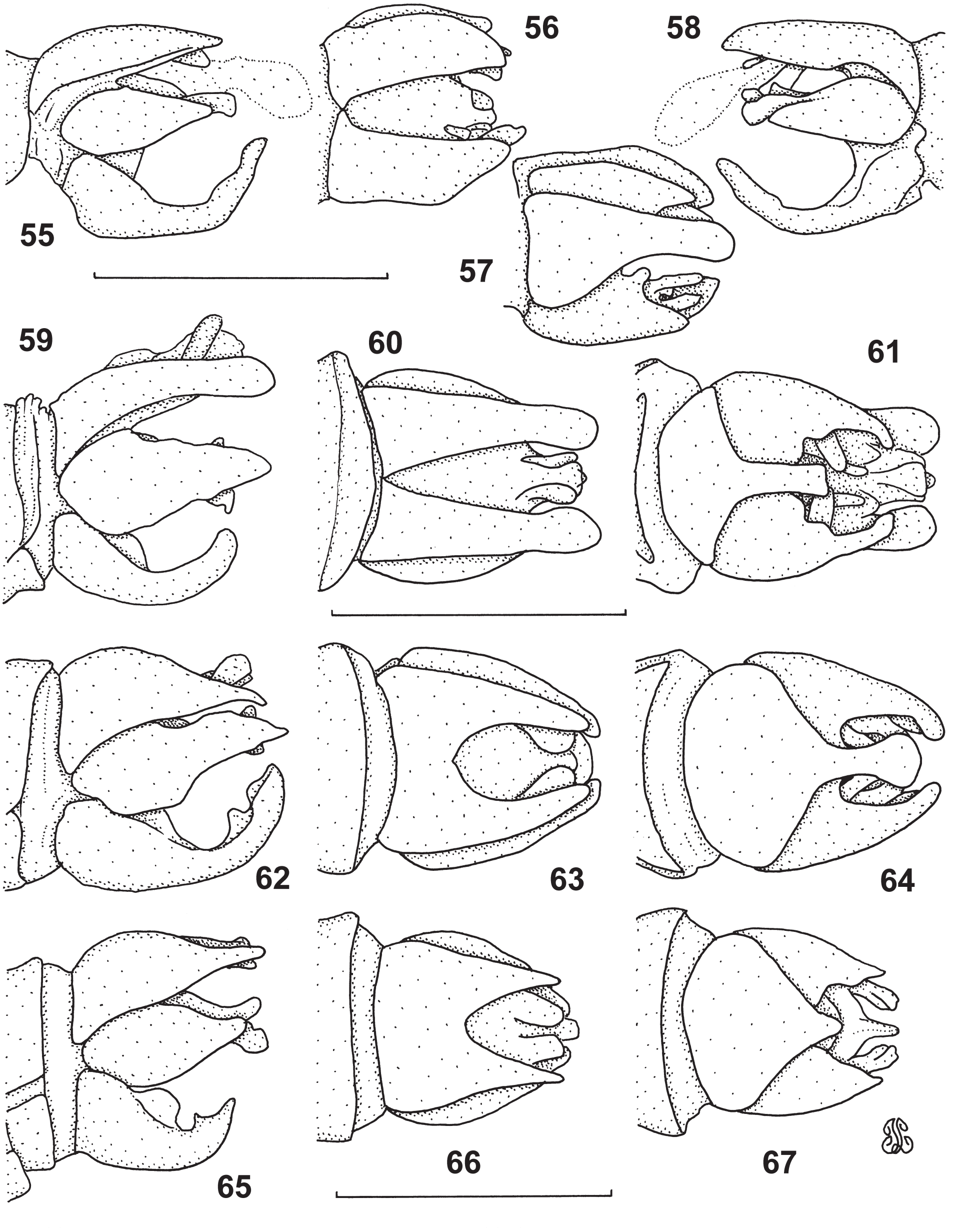
Figs 18–30. *Rhabdogaster* species, male terminalia: (18–20) *R. cuthbertsoni* sp. n., Salisbury holotype: (18) lateral, (19) dorsal, (20) ventral; (21–23) *R. eremia* sp. n., Noachabib paratype: (21) lateral, (22) dorsal, (23). ventral; (24–26) *R. etheira* sp. n., Port Nolloth paratype: (24) lateral, (25) dorsal, (26) ventral; (27–30) *R. flavida* (Lindner, 1973), Ongeama holotype: (27) lateral, (28) dorsal, (29) ventral, (30) hypandrium 'flatter' view. Scale bars = 1 mm.



Figs 31–42. *Rhabdogaster* species, male terminalia: (31–33) *R. glabra* sp. n., Windhoek holotype: (31) lateral, (32) dorsal, (33) ventral; (34–39) *R. gracilis* (Engel & Cuthbertson, 1937): (34–36) Trelawney holotype: (34) lateral, (35) dorsal, (36) ventral; (37, 38) Bakubung: (37) lateral, (38) ventral; (39) Mkomazi: lateral; (40–42) *R. kalyptos* sp. n., Grootfontein paratype: (40) lateral, (41) dorsal, (42) ventral. Scale bars = 1 mm.



Figs 43–54. *Rhabdogaster* species, male terminalia: (43–45) *R. karoo* sp. n., Graaff-Reinet paratype: (43) lateral, (44) dorsal, (45) ventral; (46–48) *R. kosmos* sp. n., Omaruru paratype: (46) lateral, (47) dorsal, (48) ventral; (49–51) *R. lindneri* sp. n., Nairobi holotype: (49) lateral, (50) dorsal, (51) ventral. (52–54) *R. maculipennis* Engel, 1929, Sawmills lectotype: (52) lateral, (53) dorsal, (54) ventral. Scale bars = 1 mm.



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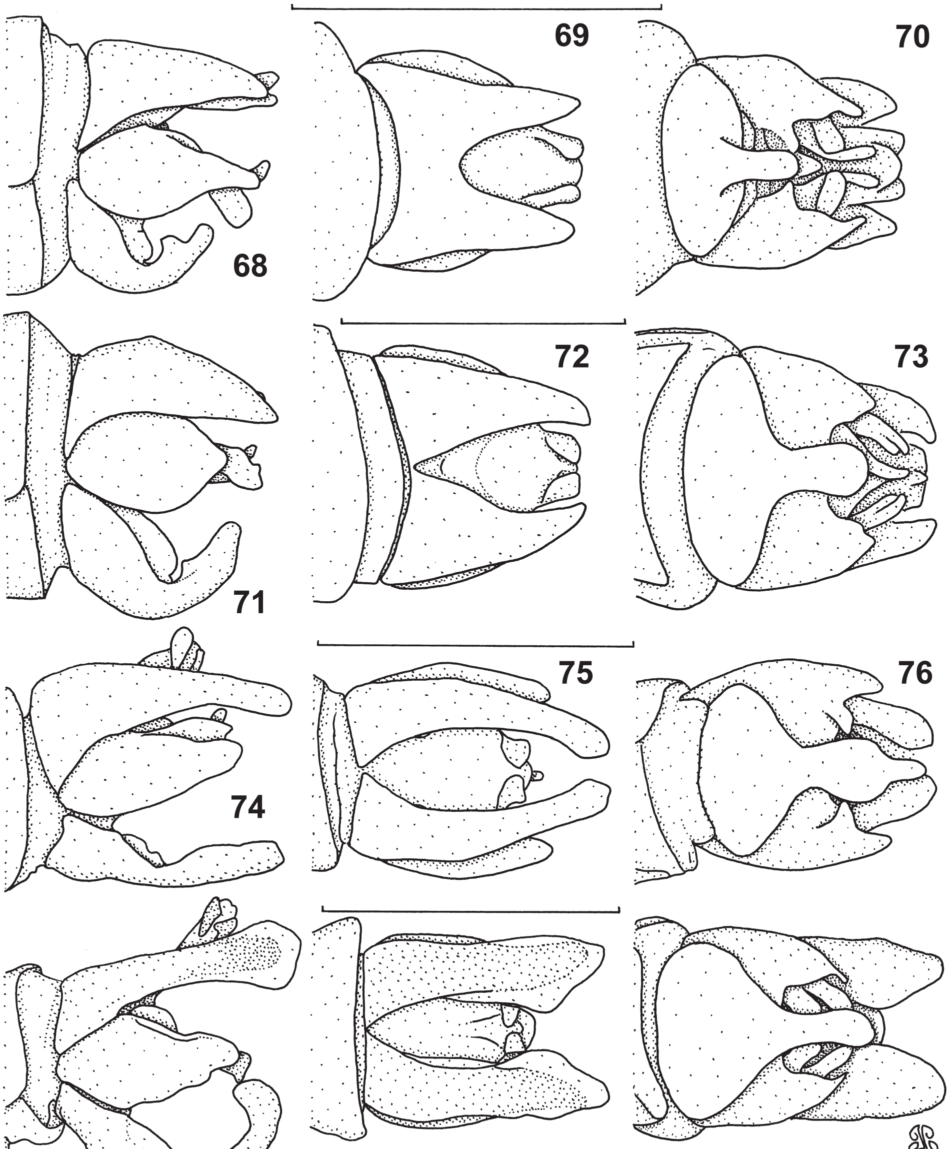

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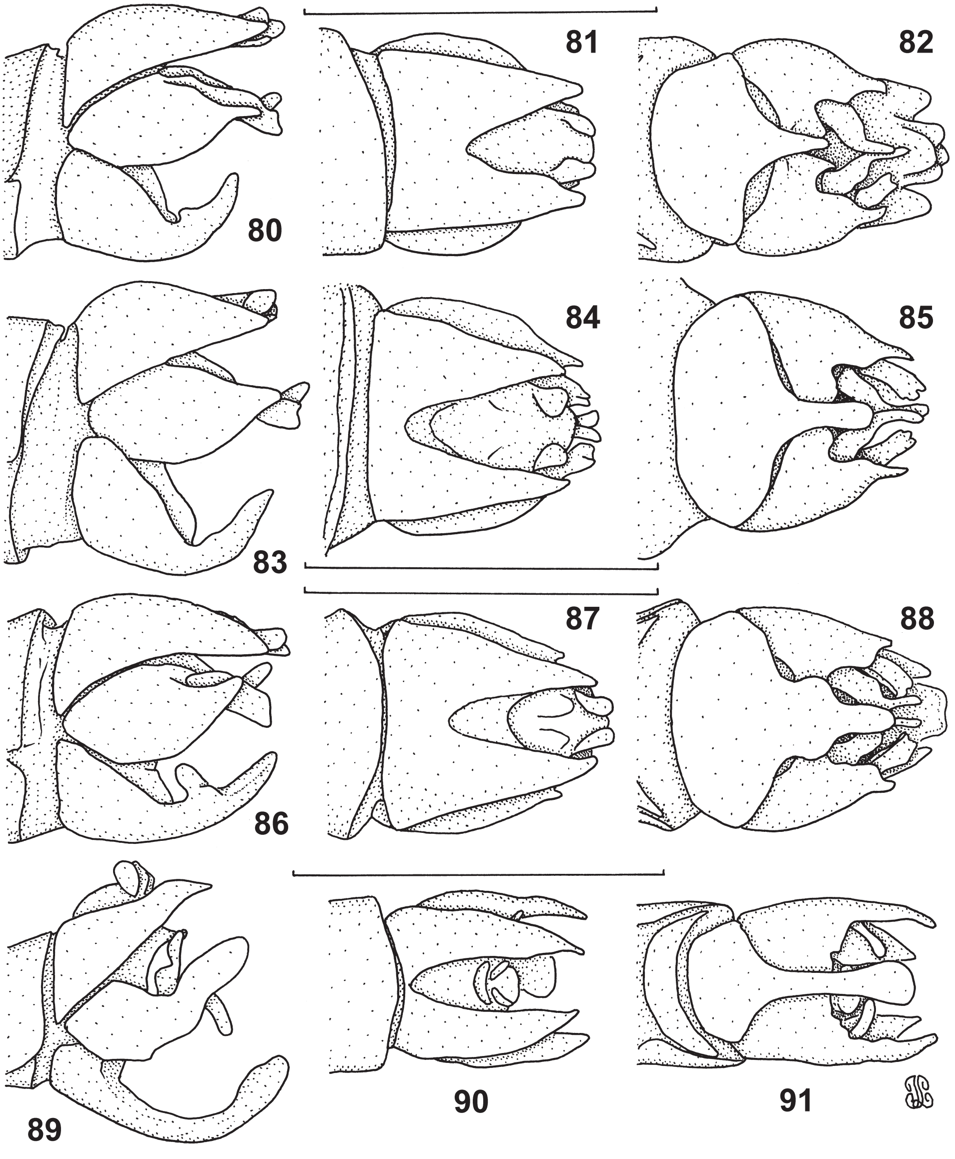

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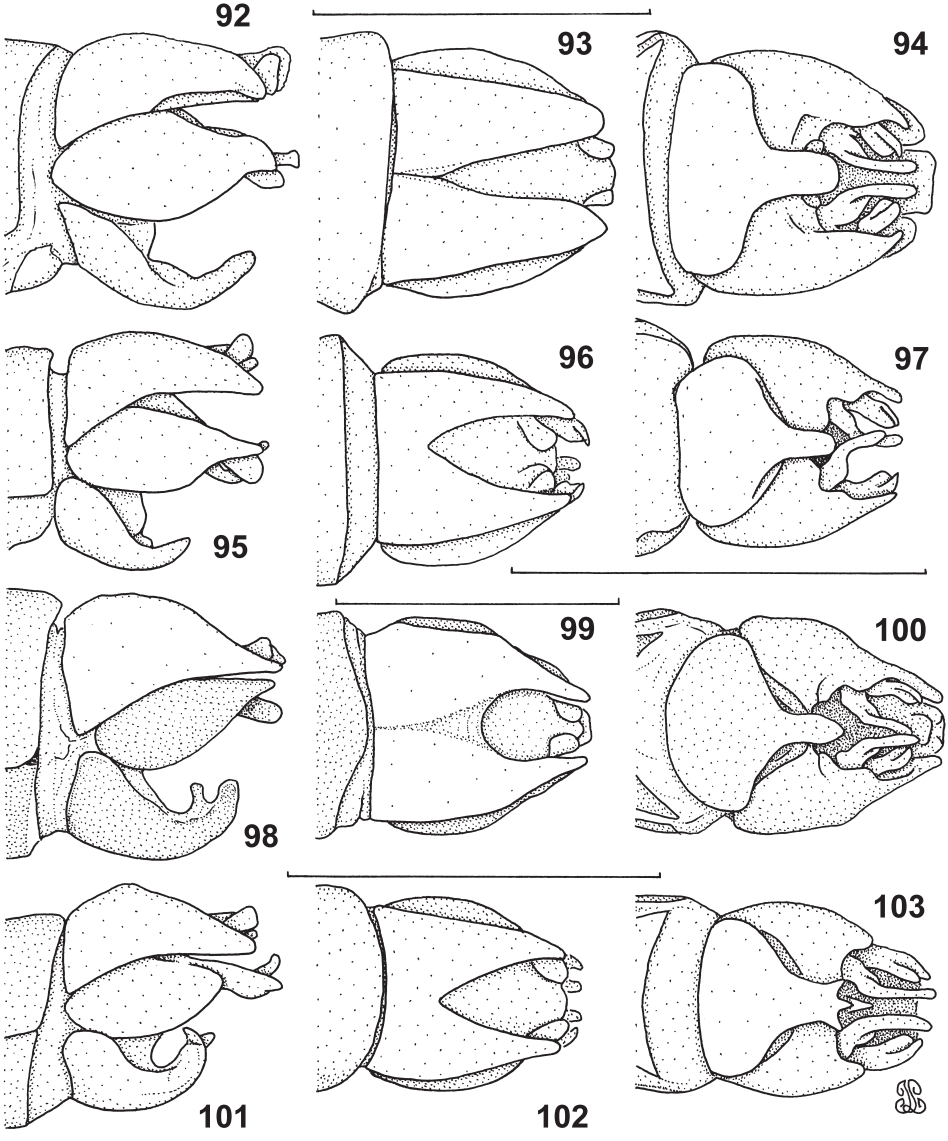

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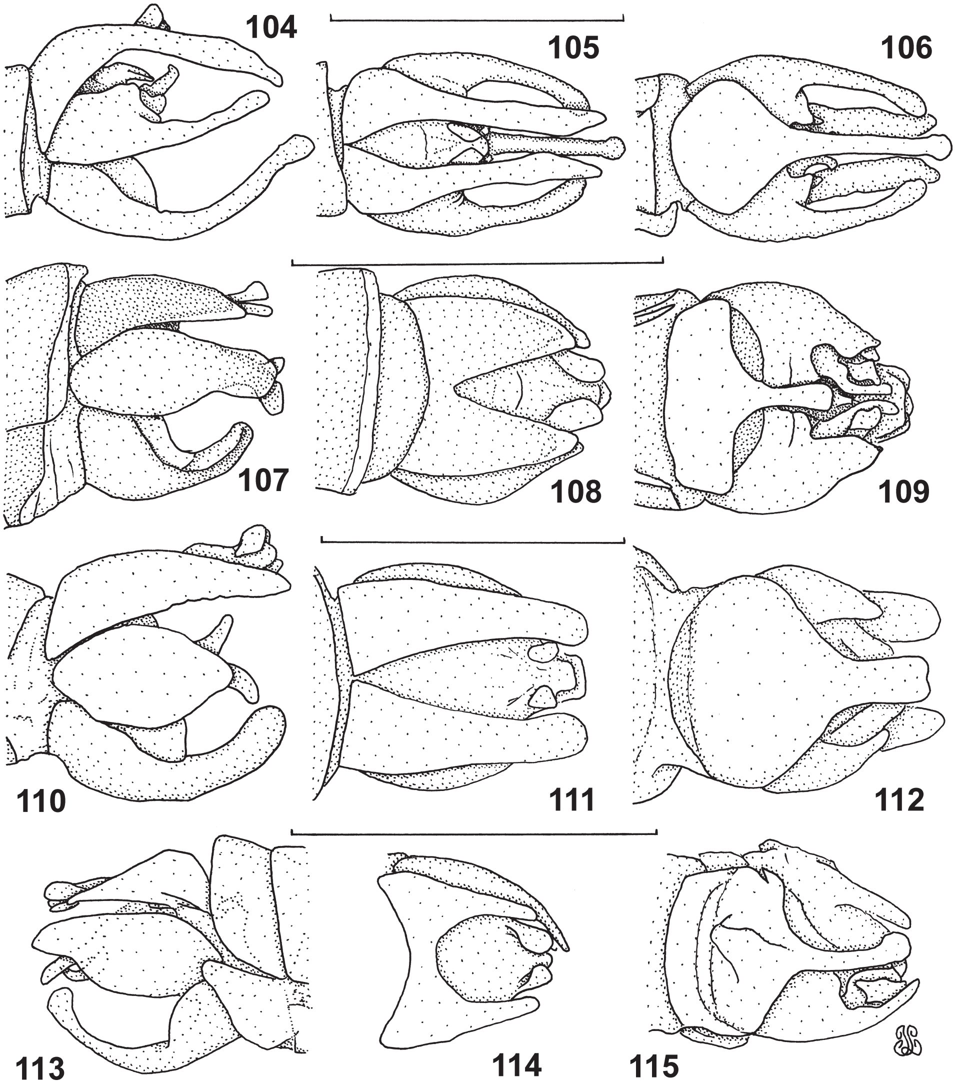

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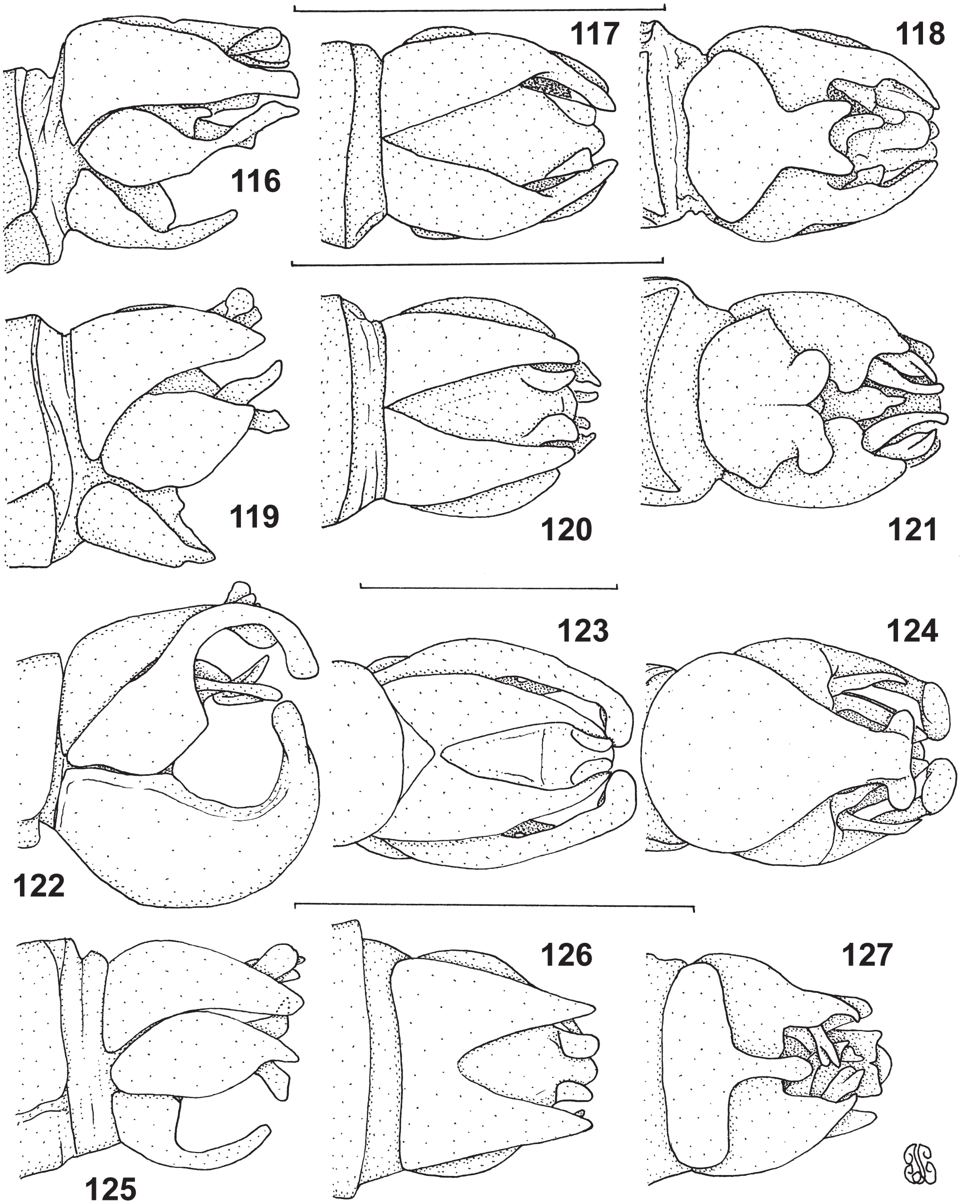

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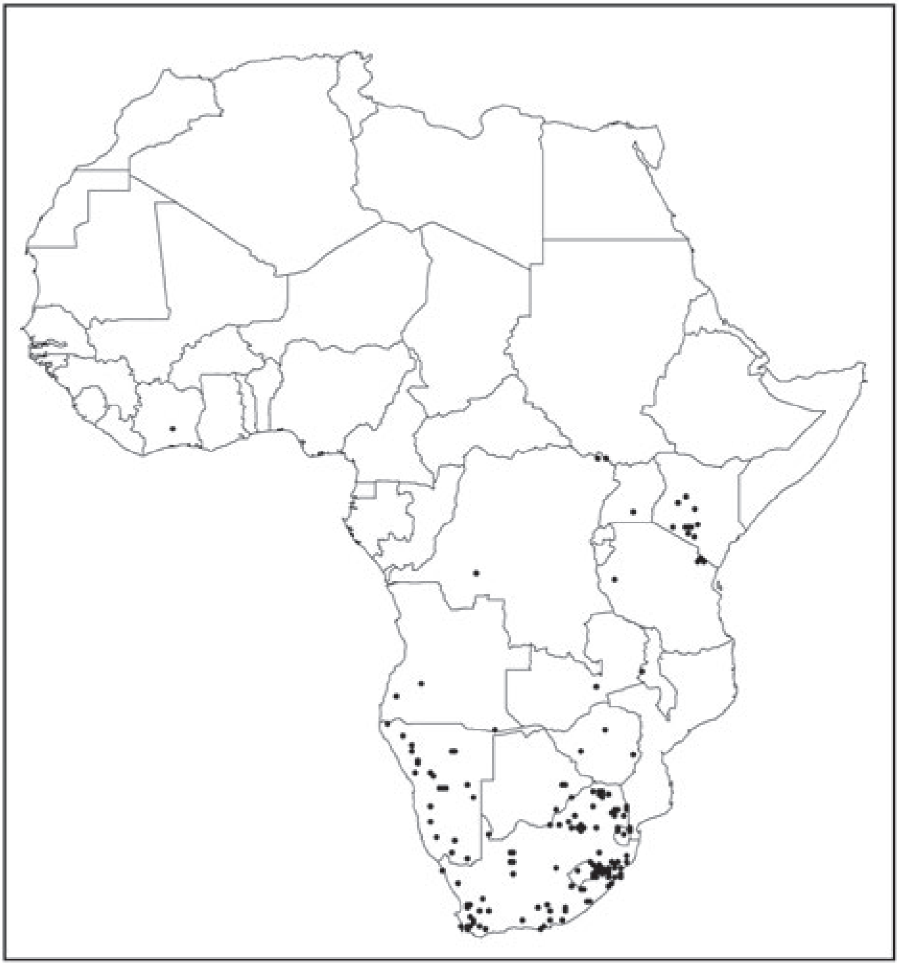
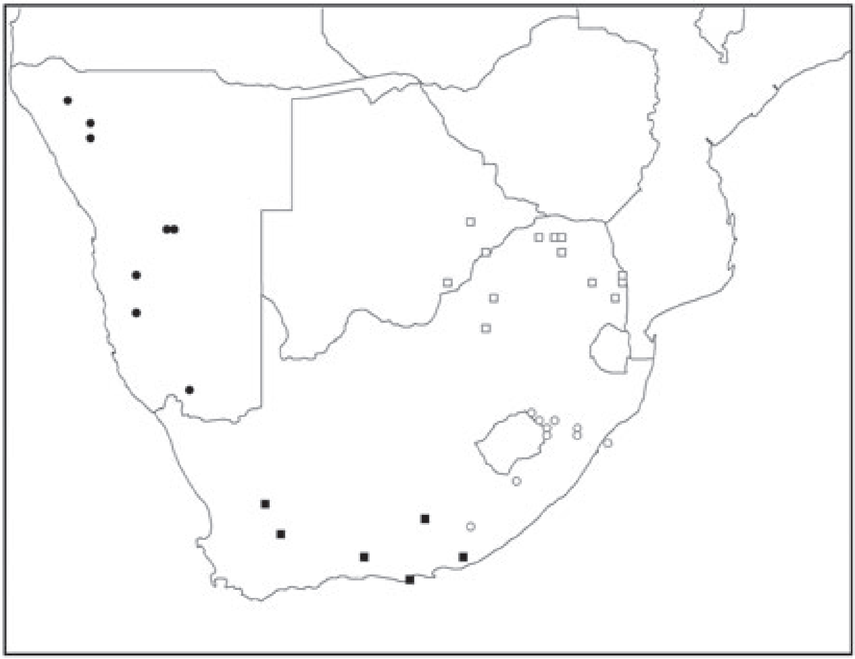


Fig. 128. African distribution of *Rhabdogaster* Loew, 1858 (excluding *R. cinerascens*).



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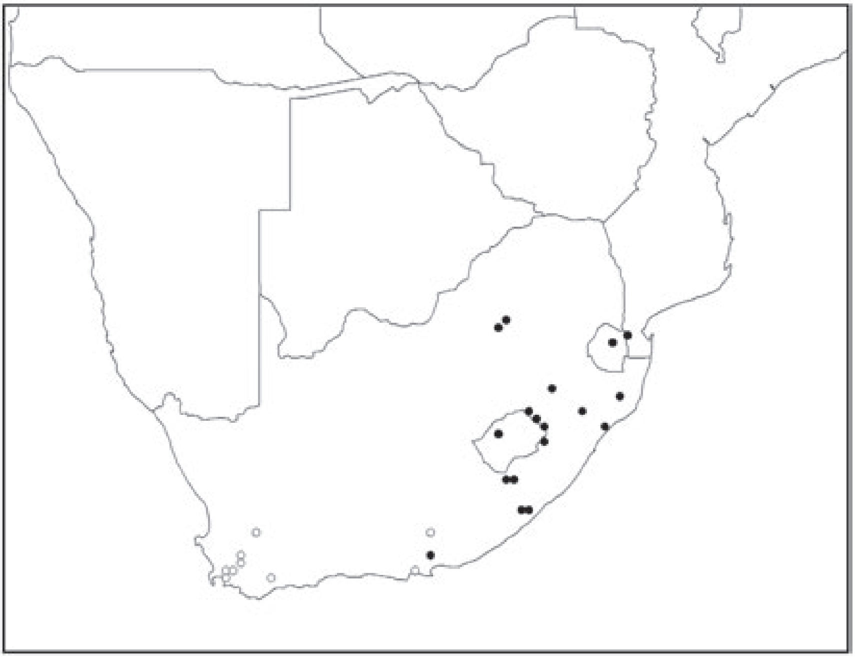

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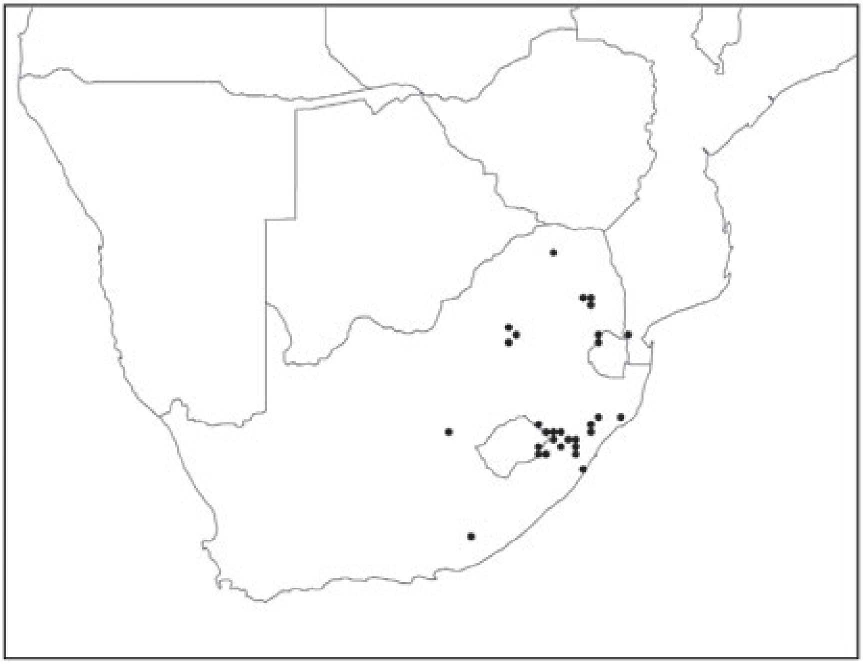

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